



2022

**Proposed Comprehensive Budget Report**



**Portland Water District**

*FROM SEBAGO LAKE TO CASCO BAY*

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# Portland Water District



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**225 Douglass Street**  
**Portland, ME 04101**

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## **Portland Water District Budget – Reader’s Guide**

Welcome to the Portland Water District’s 2022 Budget document. This document is intended to provide practical and pertinent information about the Portland Water District’s (PWD’s) financial planning, policies, goals and priorities for 2022 and beyond. The book holds a wealth of information including how water and wastewater revenues are used to support infrastructure and fund future years’ development.

### **This Budget is a Policy Document.**

It describes financial and operating policies, goals, and priorities for every fund and department of PWD for the coming year and for our 5-year planning horizon. Our Mission Statement, Strategic Goals, and Board Established Guidelines are found in the Introduction section. Significant Financial Policies are described in the section with that title.

### **This Budget is a Financial Plan.**

It describes the costs of the services provided by PWD and how they are funded. The Revenue section presents the projected revenues from water sales, wastewater assessments, interest and other income. The Departmental Expense section details expenditures by category and also by department for the Water Operations, Wastewater Operations, Environmental Services, Engineering Services and Administrative Services Departments. The Capital Expenditures section presents details of major projects planned for 2022 and projected projects through 2026. The multi-year financial plan is included in the Appendix.

### **This Budget is a Means of Communication.**

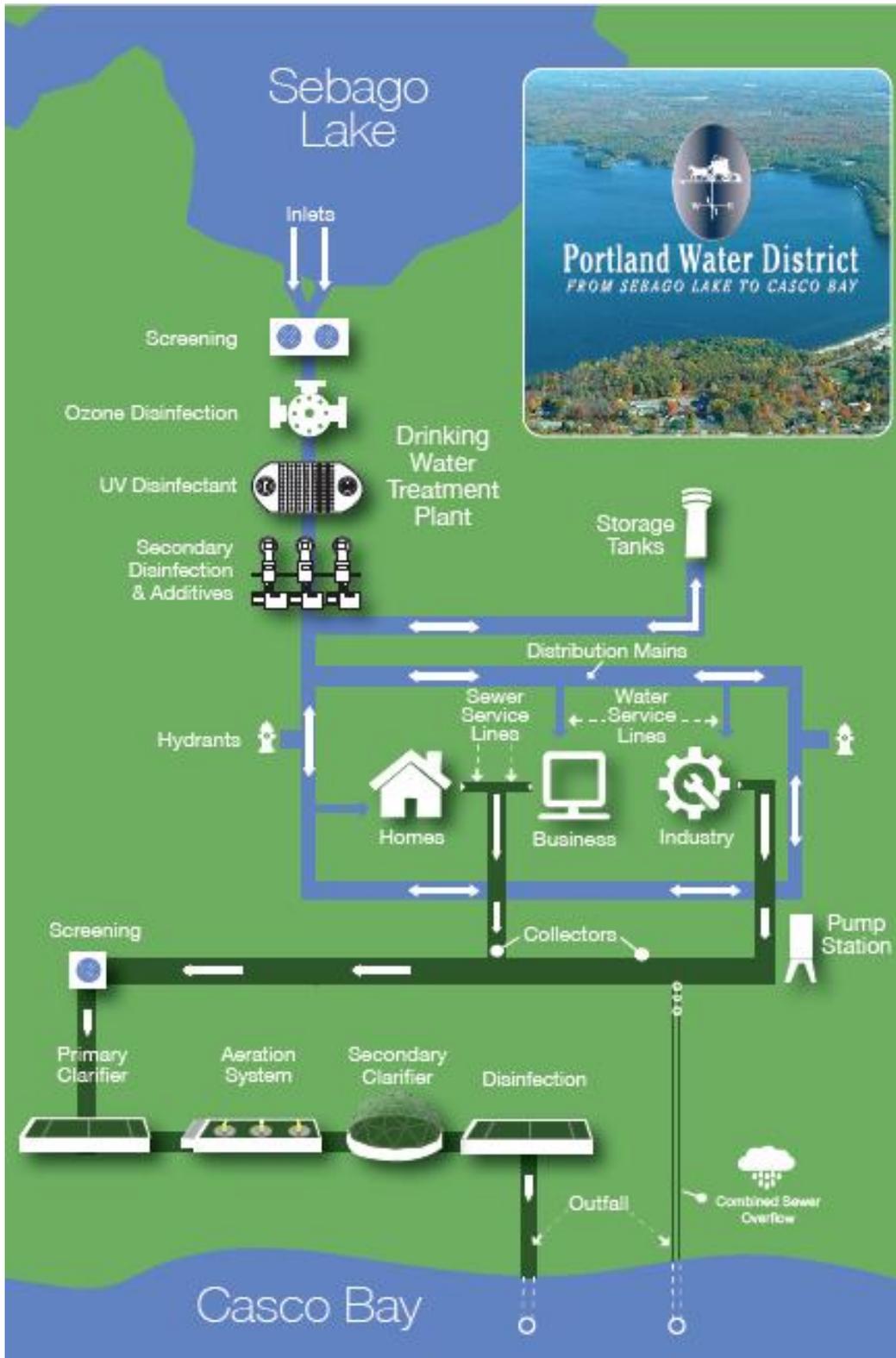
This budget is an easy-to-read document with summary information in charts and graphs that complement the details in the text. The Letter from the General Manager and Treasurer presents an organizational and financial overview of PWD. The budget for each fund- one water fund and six wastewater funds, one for each community served- is described in detail. Supporting information about the Portland economy, water benchmarks and results of the 2017 Customer Satisfaction Survey are included in the Appendix.

### **This Budget is an Operations Guide.**

It shows each Department’s organizational chart and budget overview, followed by a detailed budget which includes goals, performance benchmarks and accomplishments for each. Current year projects and initiatives are described in detail. Following the operating budgets are sections for Human Resources, Capital Finance and Financial Policies.

## Overview of the Water and Wastewater System

The diagram provides a schematic of the District system with common infrastructure terms.





## Portland Water District

From Sebago Lake To Casco Bay

October 1, 2021

To the Members of the Board of Trustees,

On behalf of the entire Management Team, we are pleased to submit for your consideration the Portland Water District's (PWD) Comprehensive Annual Budget Proposal for 2022. The document is designed to present the comprehensive financial framework for all District activities for the budget year.

The COVID-19 pandemic continued to be an overriding concern during 2021. At the time of this writing, the Delta variant was causing increased illness and hospitalizations in PWD's service area. Measures to protect the health and safety of our employees and their families were being strengthened so we could continue to provide essential services to our communities.

Also at the time of this writing, "go-live" for a new billing and asset management system was just weeks away. This is a long-anticipated event that will involve every person in the company. The level of effort by PWD Project Managers and their teams to select, configure, test, train and implement these systems has been extraordinary.

As you consider the budget for our upcoming 114th year, please reflect on our many accomplishments even as the pandemic carried on. Our dedicated staff of 187 employees works every day to ensure that clean and healthy tap water is delivered to the 210,000 inhabitants of Greater Portland, that adequate water is available for fire protection, and that wastewater is treated to remove pollution and protect the environment.

### Water Services

Water Services ensures that safe, clean and healthy drinking water is delivered throughout the 11 communities in our water service area. It all starts at Sebago Lake. Because of the excellent raw water quality and strong watershed protection program, the District was granted a waiver from filtration by the Environmental Protection Agency. The District's continued compliance with the terms of this waiver saves ratepayers the significant costs of financing, constructing and operating a filtration plant. At the Sebago Lake Water Treatment Facility (SLWTF), an average of 20 million gallons of water are treated each day using the powerful disinfectants of ozone and ultraviolet light.

After treatment, drinking water is distributed through a system of 1,000 miles of water mains, three major pump stations, and ten storage facilities. Infrastructure age, cold winter temperatures, and the

underground location of many of our assets challenge staff to operate and maintain the system with minimal disruption. Since 2010, we have invested over \$65 million in water main renewal.

#### Wastewater Services

Wastewater treatment is a vital community service that protects public health and the environment. Four wastewater treatment plants operated by the District remove, on average, nearly 95% of the pollution from the 21 million gallons of wastewater that is received at the plants daily from the six communities served. The clean water is safely released into the aquatic environment. Staff manages the collection system consisting of 118 miles of pipe and 76 pump stations that convey wastewater to the plants.

#### Engineering Services

The Engineering Services Department provides engineering and maintenance services to internal customers (Water, Wastewater and Administrative Departments) and collaborates with external customers, including communities, state agencies and developers. They oversee design and construction of water and sewer infrastructure, support long range planning, operate and maintain facilities, and support instrumentation. These functions are carried out with an asset management approach to infrastructure acquisition and maintenance.

#### Environmental Services

The District's Environmental Services Section of the Engineering Services Department monitors and protects water quality from watershed to tap and wastewater from collection to discharge. The Water Resources Group champions the protection of Sebago Lake through source protection, environmental education and outreach, and security. The Laboratory Services Group provides certified analytical testing and operational support to water and wastewater treatment plants and oversees the Industrial Pretreatment Program.

#### Administrative Services and Employee Services Departments

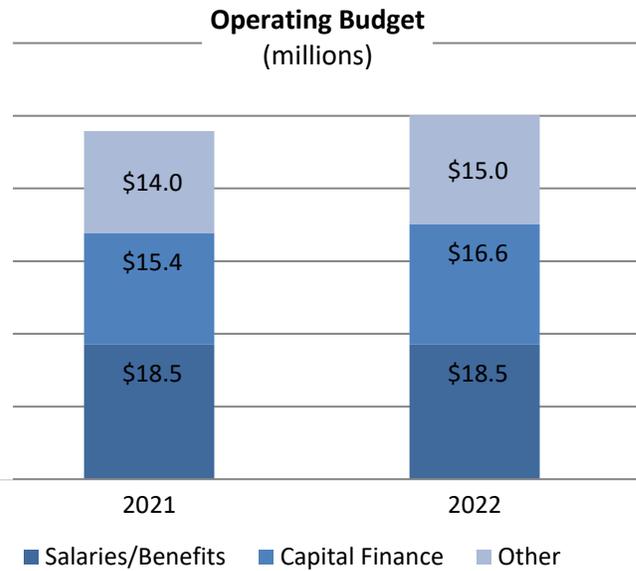
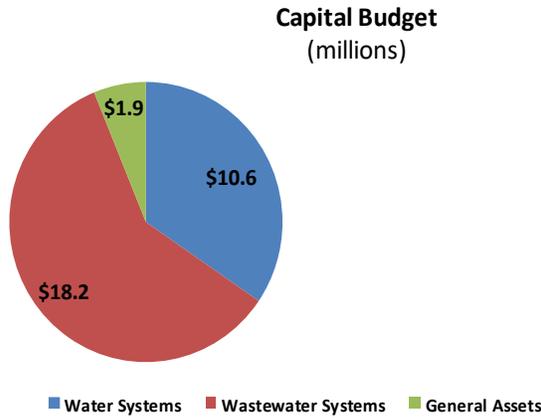
The Administrative and Employee Services Departments support the Engineering, Water and Wastewater Services Departments. In addition, Corporate Counsel and the Public Relations Manager stand ready to serve the District and our customers. Within the Administrative Services Department, the Information Services group provides computer system and technology oversight and maintenance. Financial Services provides purchasing, payroll and financial transaction processing and the Customer Service Group maintains a call center and provides billing services. The Employee Services Department handles employee recruitment and development, benefits administration and safety.

#### Financial Overview

The proposed budget for 2022 recommends \$50.1 million for operations and \$30.7 million for the first year of a five-year Capital Improvement Plan. The operating budget consists of three major expense categories – salaries/benefits (37%), capital finance (33%) and all other materials and services (30%). Salaries reflects one additional employee with a wage adjustment of 2.0% (\$272,000). Benefit costs declined (\$310,000), primarily due to lower pension costs. Capital financing costs are higher primarily due to higher debt service costs (\$889,000) and current year funding of capital projects (\$292,000). Total other expenses increased \$978,000, or 1.0%, from the prior year.

The significant changes in specific other expense line items include:

- Higher biosolids disposal costs (\$152,000) and a new state imposed PFAS-related fee on biosolids (\$233,000). The increase reflects the increased regulator and public PFAS concerns with the impact of limiting the available outlets to dispose biosolids causing the per unit cost of disposal to significantly increase;
- Higher road construction-related costs (\$205,000) due to expected price increases; and
- Higher electricity costs (\$190,000) reflecting higher per unit costs.



The \$10.6 million water capital budget includes \$7.0 million replacing aging water mains.

The \$18.2 million wastewater capital budget includes more than \$6.0 million of upgrades at Portland’s East End Treatment plant and preliminary estimate of \$10.0 million for the new North Windham Treatment facility.

Additionally, the capital budget includes an investment of \$1.9 million in general assets such as vehicles, computer system and Douglass Street main office.

<b>BUDGET HIGHLIGHTS</b>		
<p><b>NEW INITIATIVES</b></p> <p>Town of Windham is considering authorizing the construction of a new wastewater treatment facility to serve the North Windham area. If approved, construction activities could begin in 2022.</p> <p>Investing \$7.0 million in water main renewal; including \$2.0 million through capital reserve fund</p> <p>Further developing the new Asset Management and Customer Billing system to improve work processes and gain efficiencies.</p>	<p><b>BUDGET SUMMARY</b></p> <p>The Operating Budget is proposed to be \$50.1 million, an increase of \$2.1 million or 4.4%.</p> <p>Total Revenues are projected at \$50.2 million, which includes a 3.7% water rate increase effective March 1, 2022 and wastewater assessments that meet the municipalities’ expectations, except for Cape Elizabeth.</p> <p>The Capital Budget is proposed at \$30.7 million. It continues commitment to invest in water mains and wastewater facilities renovations.</p> <p>Full-time positions increase by one to 187.</p> <p>The proposed budget continues funding to implement technology solutions for knowledge management, continues to invest in staff training, and provides incentives for multi-skill development.</p>	<p><b>CHALLENGES AND ISSUES</b></p> <p>Possible continued COVID-19 impact to our operations, customers and partners is unknown.</p> <p>Long range biosolids management options related to PFAS concerns</p> <p>Aging infrastructure requires asset replacement; federal dollars for infrastructure projects in our service area may test our ability to keep pace.</p> <p>Recruiting and retaining new employees and training existing employees to adjust to needed workforce skills.</p>

Customer Impact

The proposed budget assumes a 3.7% water rate adjustment effective March 1, 2022.

Assessments to wastewater communities meet or are lower than municipal expectations, except in Cape Elizabeth. The Assessment for Cape Elizabeth increased by 12.3%, which is \$65,000 higher than expected primarily due to higher treatment expense assessment from South Portland, additional wastewater staff time dedicated to maintain system and higher electricity costs . The Assessments for Cumberland, Gorham, Portland, Westbrook and Windham increased by 1.7%, 10.5%, 3.9%, 9.3%, and 26.2%, respectively, all of which are lower than the forecast provided to the towns. Falmouth’s assessment remained the same as the prior year.

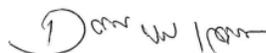
The 2021 budget guidelines established by the Board of Trustees are mostly met in this budget proposal.

- Operating fund expenses are increasing 3.4%,
- Wastewater assessments meet the municipal expectations, except for Cape Elizabeth,
- Water rates are affordable and sufficient to meet operational needs,
- Full-time positions are optimized to meet the workload, and
- Investment in our infrastructure continues as planned.

We strive to successfully execute PWD’s mission statement and meet corporate goals while providing the best value to our ratepayers both today and into the future.



Carrie Lewis , General Manager



David M. Kane, Treasurer

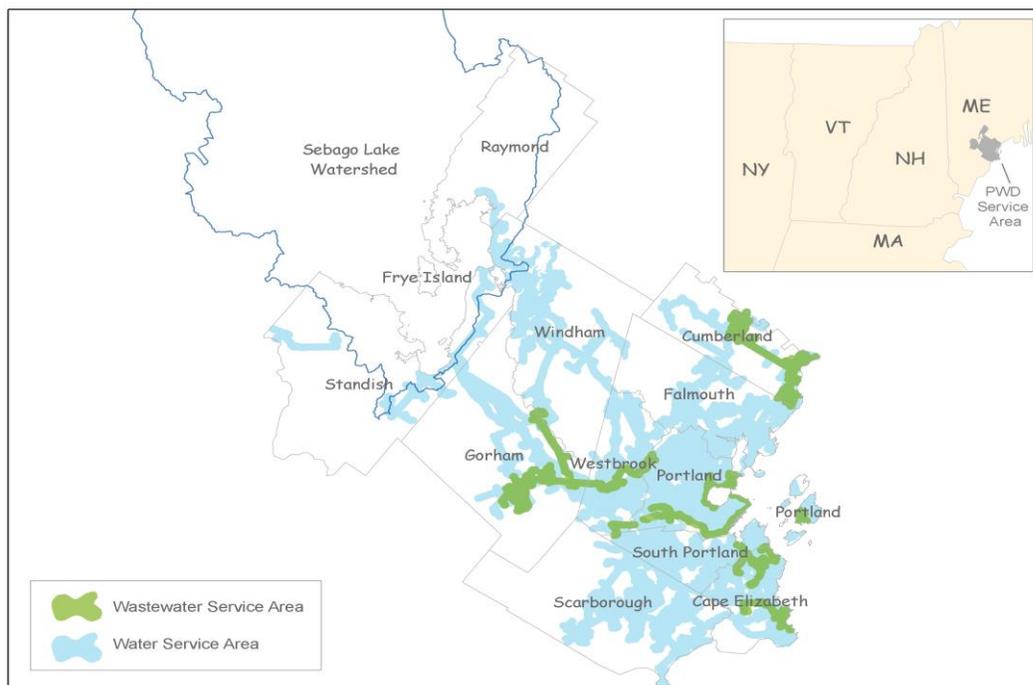
## Introduction

The Portland Water District (PWD) is a quasi-municipal utility authorized by state charter to provide water service to eleven Greater Portland communities and wastewater treatment and interception services to six of those communities. Water service is provided to 56,500 customers. Sebago Lake provides virtually all the water delivered. A network of 1,000 miles of water mains delivers water from Sebago Lake to customers. The system provides fire protection through 5,200 fire hydrants and 2,500 sprinkler systems. PWD provides additional wastewater-related services through contracts with the communities. Additional services include sewer billing and collector/storm drain system operations.

### Summary of Wastewater Services Provided:

Community	By Charter:				By Contract:		
	Customers	Treatment	Interceptors	Collectors	Storm Drains	Billing	
Cape Elizabeth	2,409	Yes	Yes	No	No	Yes	
Cumberland	1,230	No	Yes	Yes	No	Yes	
Falmouth	2,056	No	No	No	No	Yes	
Gorham	1,919	Yes	Yes	Yes	No	Yes	
Portland	17,264	Yes	Yes	Peaks Island (only)	Peaks Island (only)	Yes	
Scarborough	430	No	No	No	No	Yes	
South Portland	7,960	No	No	No	No	Yes	
Westbrook	4,734	Yes	Yes	No	No	Yes	
Windham	56	Yes	Yes	Yes	No	Yes	

## Service Territory



## History

In 1862, a group of citizens foresaw the necessity of improving the Greater Portland water supply to support continued growth. Private wells were no longer sufficient for domestic and fire protection use. This group formed the Portland Water Company. In 1869, the first water flowed from Sebago Lake to Portland, and the first water service was turned on in Portland on Thanksgiving Day.

In 1908, the Portland Water District bought the Portland Water Company and the Standish Water and Construction Company, and began serving water to Portland and South Portland. PWD later acquired the Gorham Water Company and the Falmouth Water Company. In the years that followed, Cumberland, Falmouth, Westbrook, Cape Elizabeth, Scarborough, Gorham, and the islands of Casco Bay also began receiving public water from the Portland Water District.

During the next 45 years, Greater Portland grew to be the industrial and financial hub of the state. Growth in the Portland area required several upgrades of the Portland Water District's system, including the construction of water supply systems to serve North Windham, Steep Falls, and Standish. The North Windham system was later decommissioned, partly due to the threat of MtBE contamination.

As a logical extension of its role as the regional water supplier, in the 1960s, the Portland Water District offered to handle and treat the region's wastewater. Since then, PWD constructed treatment plants in Portland (1979), Westbrook (1978), Little Falls (1987), Cape Elizabeth (1987), and Peaks Island (1993). In addition, PWD began providing wastewater maintenance and operating services to the town of Cumberland (1984) and now accepts septage from several Sebago Lake region communities.

During the 1990s water utilities around the country faced tighter regulatory requirements, more informed customers who expected a better product, and the emergence of newly detected contaminants and pathogens, which did not exist or were unidentified in years prior. The Portland Water District rose to meet these challenges with a state-of-the-art ozonation facility (built in 1994), a technologically advanced staff with expanded skills, more sampling and monitoring, and an emphasis on honest and ample communication.

The decade starting in 2000 also witnessed the aging of PWD's wastewater treatment facilities and an increased emphasis on odor control. Portland's East End Wastewater Treatment Facility started undergoing renovations to upgrade the facility and control odors, while a complete evaluation of the Westbrook/Gorham Wastewater Treatment Facility was conducted and upgrades began. Both facilities through the 2010's continue to address aging equipment with the focus in the next couple of years being the aerations systems. The East End project was completed in 2017. The proposed capital improvement plan includes a \$7.9 million Westbrook/Gorham/Windham upgrade in 2020.

In 2001, the Town of Raymond became the tenth member of the District; water service in the town began in 2002.

A focus on aging water mains began in 2011 when the Board committed to double the main renewal budget by 2016. In 2014, the Board established a capital reserve fund to provide an additional \$2 million available for main renewal. A \$7.0 million investment in water main replacement is budgeted for 2022. Also, new regulations required a second water treatment process be installed. In 2014, an ultraviolet process was added along the existing ozonation process.

## Top Reasons to Choose Portland, Maine Now

Portland is Maine's business, financial and retail capital and the largest city in the state. Seascapes and cityscapes blend harmoniously in Portland, perched on a peninsula, jutting out into island-studded Casco Bay. The metropolitan hub of Maine's south coast region, Portland is a progressive, lively city incorporating the character of yesteryear into a modern urban environment. Historic architecture blends gracefully with the new as you stroll along her working waterfront or the cobblestone streets of the restored Old Port section of the city. With a metro population of 210,000, the Greater Portland area is home to almost one quarter of Maine's total population.

High quality water delivered to homeowners/businesses and cleaned wastewater delivered back to the environment are a key expectation of our customers. Being a desirable place to visit during the summer contributes to variance in water consumption by almost 40% between winter and summer months. With a high concern for the environment, customers support our efforts to protect our watershed and realize the importance of wastewater treatment in protecting our coastal waters.

### *Portland: Yes. Life's good here.™*

U.S. News & World Report, a respected and well-known media company, chose Maine's largest city as the eighth-best place to live in the country. It also ranked Portland as the safest place to live in the U.S. In addition to being one of the best places to live, U.S. News & World Report ranked Portland as the ninth best place to live for quality of life and 33rd among best places to retire.

7/14/2021

Wall Street Journal ranks Portland/South Portland area sixth on their Emerging Housing Market Index. The index uses a slate of housing market, economic vitality, and quality of life metrics to surface emerging housing markets—areas that are expected to see home price growth and that offer attractive lifestyle amenities.

7/20/21

### *Concerned About the Environment*

Portland Ranked Seventh "Greenest City" in the United States, according to the readers of Travel & Leisure Magazine.

4/4/2012

*Women's Health Magazine ranks Portland #10 - reflecting efforts to make it easy to live healthy active lives in Maine's largest city.*

01/18/2013

### *Great Place to Visit*

When it comes to being a food-lovers' city, Portland is no longer a small side dish – it's the main course. Bon Appetit magazine has chosen Portland, Maine, as its "City of the Year," calling it "one of the most unexpected culinary destinations in the country."

9/2018

Portland, Maine is 2018 Restaurant City of the Year, Bon Appetit magazine. August 2018

Fodor's travel guide has put Portland on its '2020 Go List' of the 52 best places to visit in the world. - 2019

Trip Advisor Ranks Portland as the – 19<sup>th</sup> on the list of Trending Destinations in United States - 2020

### *Economic Hub of Maine*

Portland was listed as the ninth best city in America for female entrepreneurs and the fifth best city overall for starting a business by NerdWallet in 2016.

Forbes Ranks Portland Area in Top 10 for Job Prospects. 3/3/2012

**Techie.com Lists Portland, Maine as One of its 10 Most Unexpected Cities for High-Tech Innovation**

Techie.com asked innovators, entrepreneurs, and city leaders this question: "What are the most unexpected cities that are leading the high-tech revolution?" 4/8/2013

## The Regulatory Environment in Which We Function

The Portland Water District functions in a highly regulated environment. Its operations are regulated by federal, state, and local governments, and by a variety of government agencies. The laws and regulations created and implemented by these layers of government affect not only the District's direct operations in a regulatory sense, but its budget as it complies with various government directives.

The District's water operations are governed at the federal level by the Safe Drinking Water Act (SDWA). Originally enacted in 1974, the SDWA allows the Environmental Protection Agency (EPA) to promulgate national primary drinking water regulations to regulate contaminants that may pose health risks and that are likely to be in the public water supply. Under the SDWA, the EPA establishes a maximum contaminant level standard that regulates physical, chemical, biological and radiological substances in the drinking water supply. The best available technology and treatment techniques that are economically and technically feasible must then be used to meet this standard.

The SDWA allows the EPA to delegate to states the primary oversight and enforcement of the law, or primacy, to the state if the state meets certain requirements. The state of Maine has received primacy and its oversight and enforcement program is administered by the Department of Health and Human Services Drinking Water Program.

Wastewater regulation falls under the provisions of the federal Clean Water Act (CWA). Passed in 1972, with significant amendments in 1977 when it became known as the CWA, it is implemented and enforced by the EPA and the Army Corp. of Engineers. The CWA establishes the basic structure for regulating pollutants discharging into the waters of the United States. It gives the EPA authority to implement pollution control programs, such as setting wastewater standards for the industry. The CWA makes it unlawful to discharge a pollutant into navigable waters without a permit (National Pollutant Discharge Elimination System Permit (NPDES)).

As with the SDWA, the CWA provides that the EPA will create rules to implement the law, and will delegate to the state the administration and enforcement of the law on a day-to-day basis. In Maine, the Department of Environmental Protection (DEP) has been delegated this function, with EPA retaining concurrent authority to take enforcement action. The DEP has more stringent monitoring requirements for biosolids, whole effluent toxicity and mercury than the requirements established by the EPA. The District's treatment plants must obtain a discharge permit issued by the DEP utilizing those stricter requirements.

In addition to the environmental regulations which govern the District's operations, the District's water business is also partially regulated by the state Public Utilities Commission under a system of Maine law found in Title 35-A of the Maine Revised Statutes. In 2014, the state legislature passed a bill, An Act to Reform the Regulation of Consumer-Owned Water Utilities (2014 P.L. 2014 chapter 573) which authorized the Commission to grant exemptions of certain portions of Title 35-A. The District filed exemption requests from certain regulations. Effective January 1, 2016, the District is exempt from the Public Utilities Commission regulation related to its water rates and standards of service. Historically, the Public Utilities Commission regulated the District's water business operations through review and approval of the District's Terms and Conditions of Service, and established the rates the District charges

## The Regulatory Environment in Which We Function (continued)

for its water services rate adjustments, finance transactions and terms & conditions of service; this function is now performed by the District's elected Board of Trustees.

Local government regulations affect the District's construction activities, as the District must comply with street opening requirements in the municipalities where it conducts construction or repair operations.

The annual costs for the District's wastewater operations are assessed pursuant to the terms of its charter, enacted by the Maine Legislature (Ch. 84, P. & S.L. 1975 as amended through Ch. 18, P. & S.L. 2009). The District's charter provides that prior to January 15 of each year, the District shall determine the total anticipated amount to be raised from the participating municipalities based on the trustees' best estimate of the cost to operate the wastewater and sewage systems for the fiscal year. The amount assessed to the municipalities includes: regional costs, financing costs, and operation and maintenance costs. Municipalities are advised of their yearly assessments by the District and establish their respective sewer user rates considering the District's assessment and the costs of maintaining their respective sewer collection systems. The District's charter governs the manner of assessing participating municipalities and the treatment of any surplus funds existing at the end of a calendar year.

### **Act to Reform Regulation of Consumer-Owned Water Utilities**

In 2014, a state law was enacted allowing the State Public Utilities Commission to exempt certain individual utilities from state regulation, if requested by the utility, or classes of utilities (PUC Rule 6114).

The District filed for exemptions from certain state regulations and the ability to implement local review and rules.

The changes include allowing water rate changes and bond issuance authorizations to be approved solely by the District's publicly elected officials without state commission review.

The exemption request was approved and became effective January 1, 2016.

### **Water Rate Change Process**

In 2022, the District's Board of Trustees will consider a 3.7% rate adjustment. The chart on the next page outlines the process the District will follow in 202. The District will continue the same Board and public review process and does not require Maine Public Utilities Commission approval.

A Public Utilities Commission rule (chapter 675) allowed for the creation of a capital reserve fund starting in 2014. The fund can be used to pay costs related to water infrastructure. For utilities our size, an additional 10% over other costs may be included in justifying proposed water rates. A system infrastructure assessment (SIA) must be submitted prior to getting approval to fund the reserve. The SIA would include the list of infrastructure projects that will be funded from the reserve. Annual updates of the status of the projects and reserve fund balances are required. The District filed the SIA in October 2013 and has incorporated funding the reserve by designating 1% of the proposed March 1, 2022 3.7% rate adjustment for the reserve.

## Water Rate Case Process

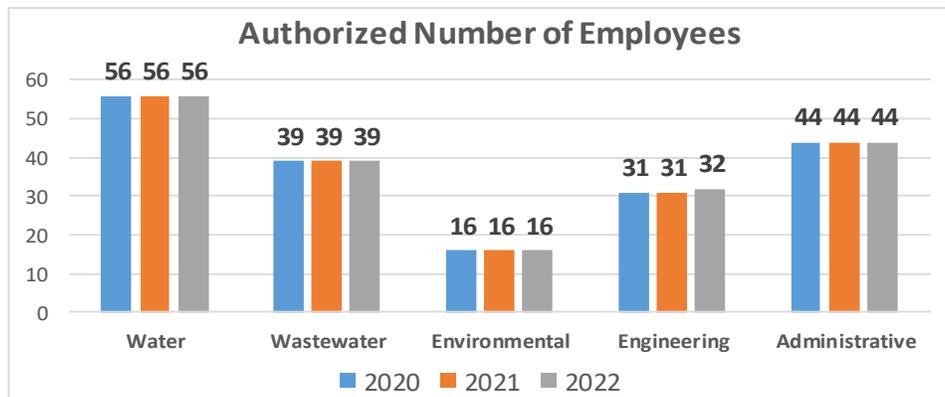
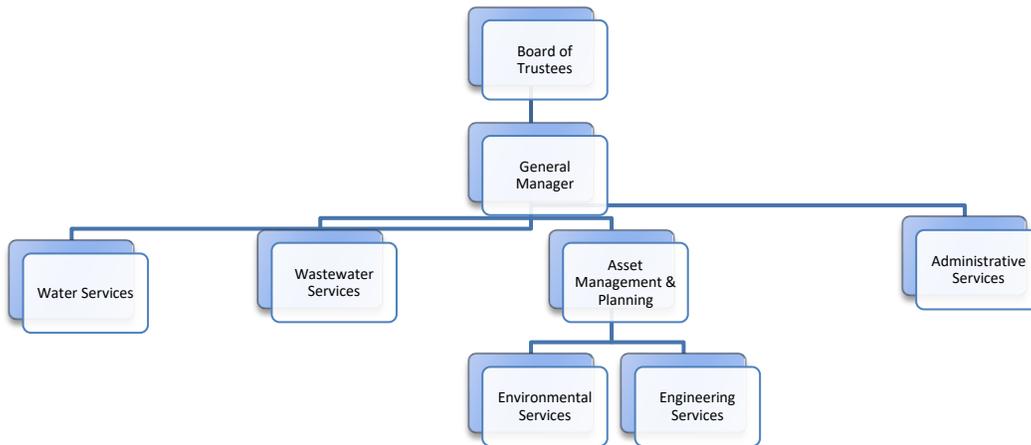
The next adjustment will be March 1, 2022.

The proposed schedule to implement the next year's rate adjustment is as follows:

- |                   |                                                                                                                                                                                                                                                                 |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| November 8, 2021  | Administration and Finance Committee reviews and makes final recommendation to be sent to customers. Finance staff will provide up-to-date financial information and revenue projections.                                                                       |
| November 22, 2021 | Board approves 2022 Budget.                                                                                                                                                                                                                                     |
| December 10, 2021 | Supporting documentation for rate adjustment is available to the Public                                                                                                                                                                                         |
| December 27, 2021 | Publish notice of rate adjustment and provide notice to all customers. Notice is mailed to all customers and includes an invitation to attend the public hearing.                                                                                               |
| January 10, 2022  | Special public hearing on proposed rate adjustment. General Manager and Treasurer provide information supporting the rate adjustment. Public has an opportunity to ask questions and provide feedback to the Board as they consider the proposed rate schedule. |
| January 24, 2022  | Board business meeting – Approve final rate schedule. The final rate schedule incorporates changes based on the public hearing and Board's feedback.                                                                                                            |
| February 24, 2022 | File final rate schedule based on public hearing and Board review. Rate schedule is distributed to Maine Public Utilities Commission for informational purposes only.                                                                                           |
| March 1, 2022     | Rate adjustment are effective date.                                                                                                                                                                                                                             |

## Organization Structure

The Portland Water District is overseen by an 11-person Board that is publically elected. The Board appoints a General Manager, who oversees the daily operation of the District. Operation is comprised of five departments – Water Services, Wastewater Services, Environmental Services, Engineering Services and Administrative Services.



- **Water Services** provides water treatment and distribution system operation and maintenance. In 2020 they added Water System and Equipment operators.
- **Wastewater Services** provides wastewater treatment and interception/collector system operation and maintenance services.
- **Environmental Services** provides watershed protection and laboratory services.
- **Engineering Services** provides general engineering, facility and vehicle maintenance services. In 2022 they added an Associate Engineer position.
- **Administrative Services** provides customer, computer, finance and general management services.

A more detailed organization chart and description of services provided are located in the Operating Expense section. The Human Resource section provides more details on the proposed number of employees and 2022 changes.

## Board of Trustees

The affairs of the District are managed by a Board of Trustees composed of 11 members. The Board adopts a budget, approves the water rates and charges for public services, establishes District-wide policies and plans and appoints a general manager to administer the affairs of the organization. The Board generally meets twice monthly; a workshop session is held the 2nd Monday of each month, and a regular business meeting is held the 4th Monday of each month. The Board votes on topics only at the regular business meeting. The Board elects a President and Vice President annually. The President assigns members of the Board to serve on at least one of three standing committees: Administration & Finance, Operations, and Asset Management & Planning (AMAP). Standing committees and workshop meetings are generally held on the same day. Special meetings may be called as needed.

The 11 members serve staggered 5-year terms. In most years, two positions become open for elections. Trustees are elected from geographic areas designed to provide representation proportionate to the population of PWD's service area. This results in combining some towns and cities.

Notices of meetings are published on the District website ([www.pwd.org](http://www.pwd.org)) and notice of the business meeting is published in the Portland Press Herald. The meeting agenda is sent to the town and city managers of District member communities. At the beginning of each year, a notice is published in the Portland Press Herald reminding the public of the Board's schedule of meetings for the year. In addition, business meetings are broadcast on public access cable TV and live streamed on [townhallstreams.com](http://townhallstreams.com). Meeting minutes are also available to the public on the web site.

## BOARD OF TRUSTEES



**Matthew Beck**  
*South Portland &  
Cape Elizabeth*

**Robert Burns**  
*Gorham*

**Guy Cote**  
*Westbrook*

**Louise Douglas**  
**President**  
*Windham  
& Raymond*

**Seth Garrison**  
*Scarborough*

**Kenneth Levinsky**  
*Portland*



**Gary Libby**  
*Portland*

**William Lunt, III**  
**Vice President**  
*Falmouth &  
Cumberland*

**Kim Rich**  
*Portland*

**Joseph Siviski**  
*South Portland  
& Cape Elizabeth*

**Jamie Willey**  
*Portland*

## Annual Planning/Budget Process

An outcome of the annual planning/budget process is a document that outlines the financial and operational plan for the upcoming fiscal year. The resulting annual operating and capital plan provides an overview of the resources expected to be available and how those resources will be used. Decisions made in developing the annual plan incorporate information from other planning processes and sources including the following:

Other Planning Processes and Information Sources:	Budget Document Location:
<p><b>Mission Statement and Strategic Goals.</b> At the beginning of the annual budget process, management reviews and updates our mission statement and strategic goals. One focus of the review was to identify how resources allocation decisions should be different.</p>	<p>Introduction Section, Mission Statement and Strategic Goals</p>
<p><b>Annual Budget Guidelines by Board.</b> Board guidelines were established providing important budget parameters.</p>	<p>Introduction Section, Board Established Annual Budget Guidelines</p>
<p><b>External Factors.</b> A review of the industry, economic, and stakeholders' trends provided information to make better planning decisions.</p>	<p>Introduction Section, External Factors Impacting the Budget</p>
<p><b>Multi-Year Ratemaking Revenue Projections.</b> Water revenues and wastewater assessments projections are made for three years to assist in rate making. The proposed budget is consistent with the projections.</p>	<p>Individual Fund Projection in the Budget by Fund Section. Summary is included in the Appendix.</p>
<p><b>Capital Master Plans and Asset Evaluations Studies.</b> The proposed budget incorporates recommendations from the various infrastructure plans/studies.</p>	<p>Capital Expenditures Section, Infrastructure and Operational Evaluation Plans</p>
<p><b>Customer Satisfaction Survey.</b> A review of the customer satisfaction survey's results provided guidance on how best to allocate resources in the upcoming year.</p>	<p>Appendix Section, Customer Satisfaction Survey</p>
<p><b>Workforce Management.</b> As part of the review of current employee demographics and future employees' needs, action steps were identified. The budget incorporates those action steps.</p>	<p>Human Resource Section, Workforce Management</p>
<p><b>Financial Policies.</b> Financial policies were reviewed to assure budget decisions were made consistent with good financial standards.</p>	<p>Financial Policies Section</p>
<p><b>Employee Satisfaction Survey/Comments.</b> General Manager's forum was held to receive input from all employees. A formal survey was conducted in 2019</p>	<p>Human Resource Section, Introduction Section</p>

## Planning/Budget Process Calendar

The outline below illustrates the process used to arrive at an adopted budget. The only legal requirement is that wastewater communities must be assessed the operating budget by January 15, 2022. The process was streamlined in anticipation of the new computer system implementation in the fall.

### April

24 Senior Management Team reviews budget process and timeline, stakeholders input, external factors impacting the budget, major policy and resource allocation issues, significant budget uncertainties, and long-term and short-term goals.

### May

22 Department Managers submit draft Operating Budget and conceptual-level Capital & Non-capital projects and initiatives

### Aug

12-21 Department Managers present draft Operating and Capital budget to the General Manager.

### Sep

1 Department Managers submit second draft Operating Budget and Capital & Non-capital projects and initiatives.

### Oct

25 Budget is presented to the Board of Trustees at a public meeting where the public can provide feedback.

### Nov

8 Departments present Operating Budget and Capital & Non-Capital projects and initiatives to their respective Board Committee. The Full Board reviews the Five-Year Capital Improvement Plan at a public meeting where the public can provide feedback.

22 Board considers adopting budget at a public meeting where the public can provide feedback.

#### **Board Committees' Department Review Responsibility**

Administration and Finance – Executive Office, Customer Services, Information Services, Financial Services and Employees Services.

Operations – Water Services and Wastewater Services

Planning – Environmental Services and Engineering Services

**Wastewater Communities:** The proposed Wastewater Assessment for each municipality is presented and reviewed with each municipality at meetings scheduled between October 26 and November 22. By January 15, 2022, the District notifies each municipality of their certified assessment amount.

## Mission Statement

The District's mission is to protect public health, safety, and the environment by providing our customers with reliable and affordable water, wastewater and related services. In order to fulfill the mission, the following six strategic goals have been established. The Board and Staff developed goals through a series of workshop discussions open to the public.

### Goal 1 - Public Health:

The District will provide products and services that meet all federal, state and local quality standards.

### Goal 2 - Public Safety:

The District will design and maintain its water system to meet modern firefighting needs.

### Goal 3 - Environment:

The District will promote the sustainability of natural resources within Casco Bay watershed.

### Goal 4 - Reliability:

The District can be trusted to provide its products and services in a manner that meets all reasonable customer expectations.

### Goal 5 - Affordability:

The District will balance the delivery of products and services with customers' ability to pay water and wastewater rates and charges.

### Goal 6 - Employees and Work Environment:

The District will have well trained and satisfied employees who will work in a safe and work environment conducive to productive work.

Strategic benchmarks have been created to indicate the District's performance over the long-term. The impact of variations in the benchmarks performance is best understood looking at the long-term trend. Additional background explanations of the strategic goals and benchmarks with the impact to the budget are provided on the next six pages.

Annual objectives and tactical benchmarks are established to guide and monitor annual performance towards meeting our strategic goals - see individual departments' objectives and benchmarks in the Operating Expenses section.

## Strategic Goals

### Strategic Goal 1: Public Health

The District will provide products and services that meet all federal, state and local quality standards.

#### Background

The District's water operations are governed at the federal level by the Safe Drinking Water Act (SDWA). Ensuring compliance with the SDWA requires short- and long-term initiatives aimed at protecting, monitoring, and treating for water quality from the source to the tap. Protecting the source begins with protecting the watershed, and protecting the watershed begins with protecting the forest's natural ability to produce clean water. Therefore, the District's approach to protecting public health includes programs aimed at promoting forest conservation, monitoring and inspecting development in the watershed, monitoring the water quality of the lake and its tributaries, providing security of the area around the intakes, and performing education/outreach to keep the public involved in the process.

#### Strategic Benchmarks (updated periodically):

The District is in compliance with all drinking water regulatory standards. Two key measures are the quality of the source water in Sebago Lake and the ability to maintain an adequate level of disinfectant throughout the distribution system. The state of the lake is indicated by the Trophic State Index - an index that tracks water clarity along with the amounts of phosphorus and algae in the water. The current trophic state for Sebago Lake is good for drinking water quality. Chloramines are added to maintain a level of disinfectant throughout the distribution system. The level of chloramines is measured weekly at forty-three locations throughout the service area, and the treatment process is adjusted continuously to maintain desired levels.

<b>Benchmarks:</b>	<b>1998</b>	<b>2003</b>	<b>2008</b>	<b>2013</b>	<b>2018</b>
Percent of Days in Compliance with Water Regulations	100%	100%	100%	100%	100%
Water Quality: Sebago Lake Trophic State Index (goal – 24 to 32)	31	27	30	32	29
10th Percentile Chloramine Residual (goal 0.4 mg/L)	N/A	N/A	0.2 mg/L	0.3 mg/L	0.77 mg/L
Land in Conservation in the Watershed (acres)	N/A	0	350	1100	5826
Service Area Communities served by Education/Outreach Programs	N/A	N/A	10	11	10
Security (violations per 1000 visitors)	N/A	N/A	12	7	12

#### Current Status, Challenges and Impact to Current Budget:

A new water storage tank station in the 407 zone (Windham and Gorham) will be constructed in 2022.

Continue to allocate money to work with watershed partners to prevent non-point pollution into Sebago Lake. Continue developing the Sebago Clean Water coalition to generate additional funds to protect watershed land. Coordinate the execution of projects, including watershed conservation easement purchases, of a \$8 million grant received from U.S. Department of Agriculture through its Natural Resources Conservation Service Regional Conservation Partnership Program.

A new federal law dealing with lead will require the District to increase its field sampling and monitoring program and address any lead piping found in its system. In 2022, we will begin preparing for the Revised Lead and Copper Rule's compliance deadline of September 16, 2024.

## Strategic Goal 2: Safety

The District will design and maintain its water system to meet modern firefighting needs.

### Background

One of the original reasons the District was created was to provide adequate water volume and pressure to combat fires.

A common benchmark measuring the fire-fighting capability is the community's public protection classification, a numerical grade given by the Insurance Service Office (ISO). The classification is developed based on grades given the community's fire department (60%) and water supply (40%) systems. The District is mainly responsible for the water supply system within our service territory. The classification is developed by the ISO, an international firm that provides information regarding property and liability risk.

### Strategic Benchmarks (periodically by ISO):

The 2003 Comprehensive Water System Strategic Plan identified infrastructure and operational changes that would improve the water system rating within our service territory. The date indicates the last time the rating has been updated by ISO.

#### Benchmarks:

Stable or Improving Communities' ISO rating for Water Systems - Communities Improve/Stable Rating

Municipality	Percent of Municipality Served by the District	Water System (maximum = 40%)	ISO Rating Date
Cape Elizabeth	78%	36.54%	1995
Cumberland	43%	22.89%	2001
Falmouth	50%	32.93%	1992
Gorham	32%	34.20%	1993
Portland	94%	37.48%	2000
Raymond	3%	27.28%	2002
Scarborough	40%	32.46%	1991
South Portland	90%	37.35%	1999
Standish	13%	25.25%	1996
Westbrook	79%	36.84%	1996
Windham	37%	25.73%	2004

### Current Status, Challenges and Impact to Current Budget:

The Capital Improvement Plan includes funding to replace water mains and hydrants, including \$4.0 million to continue upgrading the 407 zone, an area in Gorham and Windham, over the next 5 years. Additionally, staff will continue meeting with the municipal fire departments to identify action steps to improve. Annual inspection of all hydrants will be done and any inoperable hydrants will be fixed promptly.

### Strategic Goal 3: Environment

The District will promote the sustainability of natural resources within the Casco Bay watershed.

#### Background

The District treats and returns to Casco Bay watershed 23 million gallons of wastewater each day. The discharged wastewater must meet certain wastewater regulations. Wastewater regulations fall under the provisions of the federal Clean Water Act (CWA). Passed in 1972, with significant amendments in 1977 when it became known as the CWA, it is implemented and enforced by the EPA and the Army Corp. of Engineers. The CWA establishes the basic structure for regulating pollutants discharging into the waters of the United States. It gives the EPA authority to implement pollution control programs, such as setting wastewater standards for industry. The CWA makes it unlawful to discharge a pollutant into navigable waters without a permit called the National Pollutant Discharge Elimination System Permit (NPDES).

The CWA provides that the EPA will create rules to implement the law, and will delegate to the state the administration and enforcement of the law on a day-to-day basis. In Maine, the Department of Environmental Protection (DEP) has been delegated this function, with EPA retaining concurrent authority to take enforcement action. The DEP has more stringent monitoring requirements for biosolids, whole effluent toxicity and mercury than the requirements established by EPA. The District's treatment plants must obtain a discharge permit issued by the DEP adhering to those stricter requirements.

#### Strategic Benchmarks (updated every 5 years):

The District meets the standards required by each plant DEP-issued wastewater discharge permit. The standards include numerous daily, weekly and monthly benchmarks. In addition, the elimination of any discharges of untreated wastewater during dry weather (i.e. – no rain or snow melt) to watershed is a goal.

	2003	2008	2013	2018
<b><u>Compliance with discharge permit:</u></b>				
East End Wastewater Treatment Facility	49	22	5	12
Westbrook / Gorham / Windham Treatment Facility	8	8	0	1
Cape Elizabeth Treatment Facility	10	13	2	5
Peak's Island (in Portland) Treatment Facility	0	3	0	8
Dry Weather Overflows	N/A	1	3	10

#### Current Status, Challenges and Impact to Current Budget:

Many of the non-compliance incidents occur during wet weather when the facilities cannot treat the volume of water resulting in untreated or less treated wastewater to be discharged to the watershed. In 2022, the focus in each system is as follows:

Cape Elizabeth – Assisting the town in identifying the source and solution for the overflow related to the Ottawa Road pump station, including a planned \$350,000 pump station upgrade in 2022.

Gorham/Westbrook/Windham – Assisting the city in eliminating combined sewer overflow in the city's collector system.

Portland - Assisting the city in eliminating combined sewer overflow in the city's collector system.

## Strategic Goal 4: Reliability

The District can be trusted to provide its products and services in a manner that meets all reasonable customer expectations.

### Background

The state has granted the District the exclusive authority to provide public drinking water service and wastewater treatment/interceptor service to customers in our service territory. Customers and regulators assume we will provide appropriate service 24/7. Water service standards are established by the Maine Public Utilities Commission and Department of Human Services; including standards related to customer service and billing. Wastewater service standards are established by the Maine Department of Environmental Protection.

### Strategic Benchmarks (updated every 5 years):

The District periodically conducts a formal customer satisfaction survey. Customers expect us to provide two basic services reliably – to provide water to customers’ homes and to treat wastewater delivered to District’s system.

### Current Status, Challenges and Impact to Current Budget:

	2003	2008	2013	2018
Water Service failure per million hours of available service - Total Customer Outage Hrs. / ((51,296 X 365 X 24) / 1,000,000)	15.8	15.7	9.4	13.2
Wastewater Reliability Index – WW Systems infrastructure that is In Service Full (ability to deliver design flow)				
WW Systems and Pumping Stations convey flow to treatment plants	Not available	98.6%	99.6%	Not available
WW Treatment Plants available to treat flow	Not available	100%	100%	Not available
Customer Satisfaction Survey Results	89%	85%	87%	75%

The 2017 customer satisfaction survey was completed and indicates satisfaction continues to be high with 75% of customers indicating they are satisfied or generally pleased with the level, quality and reliability of the water and wastewater services provided. We will continue investing in our ‘value of water’ campaign and explore offering additional self-help options including advance notification of certain events.

In 2021, the most significant water system project to increase reliability is the \$7.0 million investment in aging water mains, which will reduce main failures. Significant wastewater system projects/programs that will increase reliability include the renovating aging pump stations and treatment facilities; including a significant upgrade to the Portland’s East End WW Treatment plant electricity system and completion of the construction of a \$12 million Westbrook Regional WW Treatment plant aeration upgrade.

## Strategic Goal 5: Affordability

The District will balance the delivery of products and services with customers' ability to pay water and wastewater rates and charges.

### Background

An industry affordability benchmark is to compare the typical household bill as a percent of median household income. The national standard is the utility bill is considered affordable if the annual bill is less than 2% of median income. The District water rates are well below the affordability standard with the typical household paying only 0.46% of median income. The Board established target is not to increase water rates greater than the rate of inflation. Since 1998, water rates are significantly below that target.

The Board's policy is to increase assessment to municipalities for wastewater service at or below the rate of inflation. Costs related to municipal requests for additional/expanded service and federal unfunded regulations may result in a higher assessment.

	1998	2003	2008	2013	2018	
Water Rates for a Typical 3-person household as a percent of Median Income	0.52%	0.42%	0.41%	0.46%	0.42%	
Water Revenue per Typical Customer Actual Inflation Adjusted	\$ 228.12	\$ 210.72 \$257.40	\$ 221.64 \$293.33	\$ 254.16 \$325.69	\$ 292.68 \$350.67	
Wastewater Assessments: (inflation 53.7%)						2013 vs 1998
Cape Elizabeth	\$ 944,000	\$ 863,052	\$ 1,049,052	\$ 1,365,084	\$ 1,575,912	67%
Cumberland	\$ 315,800	\$ 498,144	\$ 764,236	\$ 713,940	\$ 905,364	187%
Gorham	\$ 428,200	\$ 490,608	\$ 924,732	\$ 1,084,464	\$ 1,133,436	165%
Portland	\$ 6,972,900	\$ 8,753,220	\$ 9,951,852	\$ 10,540,044	\$ 12,616,080	81%
Westbrook	\$ 1,588,300	\$ 1,599,100	\$ 1,800,540	\$ 2,533,176	\$ 2,539,800	60%
Windham	\$ 46,000	\$ 45,996	\$ 214,320	\$ 351,756	\$ 366,768	697%

### Current Status, Challenges and Impact to Current Budget:

Water rates are assumed to increase by 3.7% effective March 1, 2022. Since 1998, water rates have increased the same amount as the long-term inflation rate. The proposed increase is consistent with the Board of Trustees' direction to have small incremental water rate increases annually. Increases are needed to meet the increasing capital costs to replace aging water mains, funding a new capital reserve fund contribution and funding an adequate contingency fund.

In 2022, Wastewater assessments increased on average by 6% - higher than rate of inflation but at or below the level each municipality expected, except for the town of Cape Elizabeth. Cape Elizabeth's higher assessment is due to the increased South Portland assessment for treatment services, additional wastewater staff time allocated to maintain the system and higher electricity costs.

Wastewater assessments have increased above the rate of inflation (62%) since 1998. The increase is related to meet municipal request for expanded service, additional regulatory requirements, and replacing aging infrastructure. To mitigate the upward pressure on assessments, the wastewater services area has reorganized its staff and continues to review processes and procedures to become more efficient.

## Strategic Goal 6: Employees and Work Environment

The District will have well trained and satisfied employees who work in a safe and productive work environment.

### Background

Since 1995, a periodic survey of all employees is conducted. The survey provides employee feedback on the work environment including questions related to compensation, management and policies.

The premium paid on workers' compensation is partially based on a modification factor (MOD). The factor compares the District's injury rate with other organizations with similar risk exposure. The District seeks workers' compensation injury rate that is no higher than industry average (i.e. – a rating of 1 or less).

Finding time for training is an important goal. The goal that has been established is an average of 80 training hours per employee.

### Strategic Benchmarks (updated every 5 years):

	1998	2003	2008	2013	2018
District's biennial Employee Satisfaction Average Score - Range 1 (lowest) to 6 (highest)	3.52	4.02	4.42	4.48	N/A
Workers' Compensation Modification Factor – 1.00 = Industry average (goal is less than 1)	1.62	0.99	1.06	1.06	0.87
Average Training Hours Per Employee – current goal is 80 hours	22	55	83	105	82

Note: The employee satisfaction survey format was changed in 2018 so comparable numbers are not available.

### Current Status, Challenges and Impact to Current Budget:

Late 2019, an employee satisfaction survey was conducted. Based on the survey results, three areas of focus are: inconsistent application of policies, compensation, and improved internal communication.

The current workers' compensation modification factor indicates that our injury rate is below average for our industry. We will continue our efforts to maintain a rate below 1, which indicates an organization is average.

Management development and consistency of practice efforts continue through our commitment of an average of 80 hours of training per employee. The water and wastewater departments continue an apprentice program to provide a broad education to our new employees.

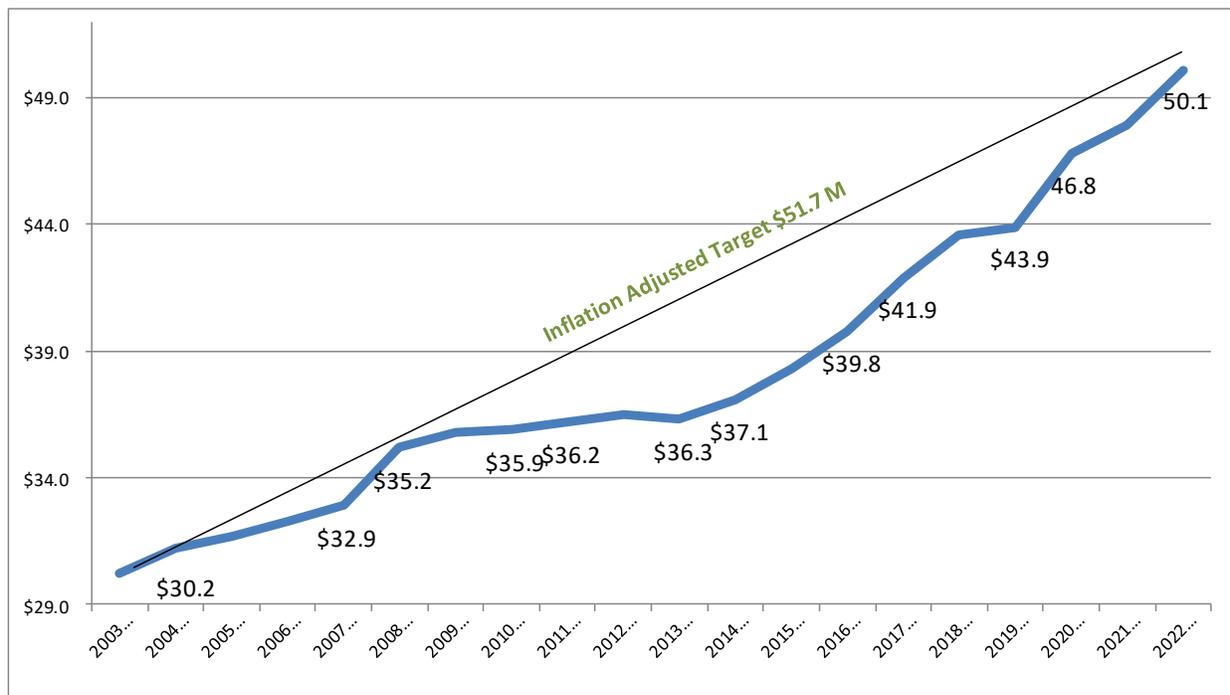
Starting in 2021, the Employees Services department staff was increased by an additional person for the full year to continue improving services and programs focusing on employment development and support.

## Board Established Annual Budget Guidelines

To help guide staff, the Board of Trustees set four guidelines for the budget process.

<u>Guideline</u>	The Operating Funds' Budget will not increase more than the rate of inflation over the long-term. The annual target is rate of inflation plus any unfunded federal/state/local mandates and funding for water main renewal of up to 1% of water revenues.
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The Guideline is established to limit growth of the budget to a reasonable growth level not exceeding the inflation rate. Inflation for the past year 9.4%. A 1.2% growth from 2021 budget sets a target of \$51.7 million. Requested budget is \$50.1 million. Over the long-term, the requested budget is \$1.6 million lower inflation not adjusted for federal/state/local mandates.



<u>Guideline</u>	Capital expenditures will be consistent with the levels recommended in the Water and Wastewater system plans.
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A guideline was established to ensure capital projects are consistent with various plans including the Water Master Plan, Comprehensive Plant and System plans, and Combined Sewer Overflow plans. **The proposed capital expenditures meet the guidelines – see Infrastructure and Operational Evaluation Plans in the Capital Expenditures section for details.**

## Board Established Annual Budget Guidelines (continued)

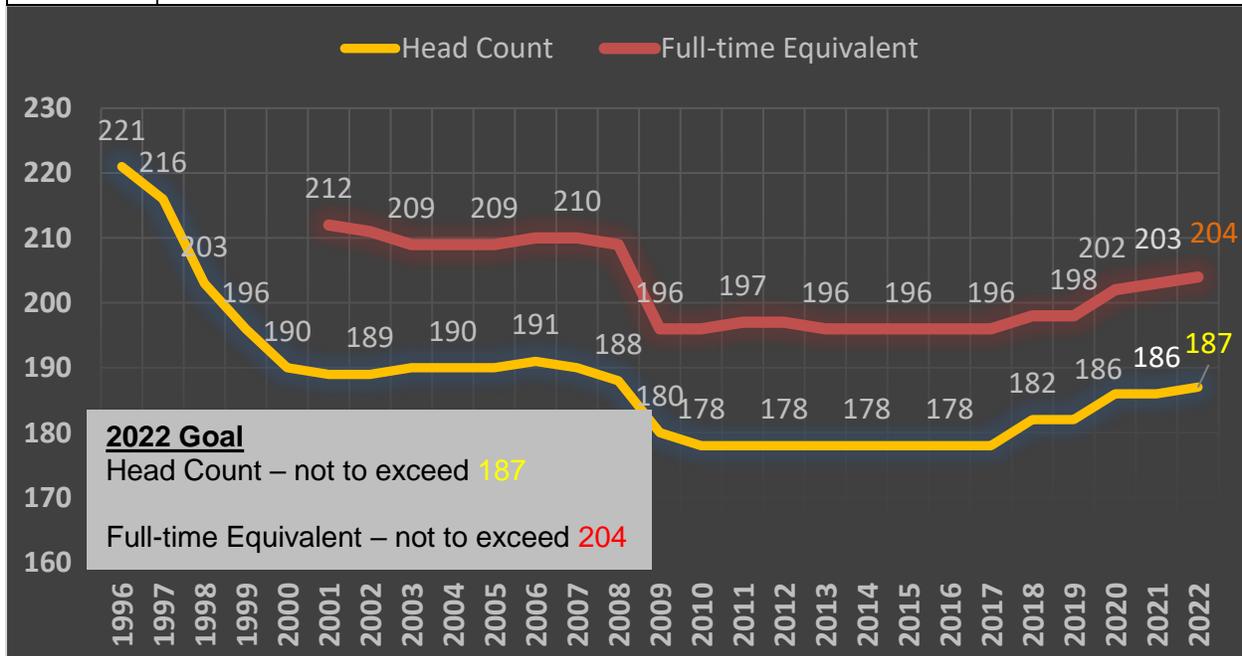
<u>Guideline</u>	Water Revenue Requirement and Wastewater Assessments increases will not exceed the rate of inflation excluding the impact of mutually agreed upon changes in services, capital investments, surplus fund utilization or Board's request to increase surplus balance.
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**All Wastewater assessments and Water Revenue Increases meet or are below the Board of Trustees and Municipal expectations except Cape Elizabeth Wastewater. Higher treatment costs assessed by South Portland, additional staff time spent to maintain system and higher electricity costs are the primary reason Cape Elizabeth was higher. The most significant reason for the better than forecast results is lower capital debt service for capital expenditures.**

	2022 Target		2022 Proposed Budget	
Water	\$26,966,738	5.1%	\$26,824,845	4.5%
Cape Elizabeth	\$1,995,786	8.7%	\$2,061,612	12.3%
Cumberland	\$1,009,089	2.0%	\$1,005,600	1.7%
Gorham	\$1,313,155	10.5%	\$1,313,100	10.5%
Portland	\$14,316,905	6.5%	\$13,960,236	3.9%
Westbrook	\$3,173,272	9.3%	\$3,173,124	9.3%
Windham	\$519,152	26.3%	\$518,412	26.2%

Salary and benefits are one of the District's most significant costs. To control costs, a targeted headcount is established. **The proposed budget contains 187 employees and 204.22 full-time equivalent employees – meeting the Goal.**

<u>Guideline</u>	The number of employees will not exceed 187 and the full-time equivalency (FTE) will not exceed 204.
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## External Factors Impacting the Budget

### Economy

The local economy was significantly impacted by COVID-19. Greater Portland's unemployment rate from historic lows of less than 3% to 11% in April 2020. At of July 2021, the rate has dropped to 4.4%. The real estate market has been extremely hot with the area ranked in the top 10 markets nationally.

The national economy continues the trend of keeping interest rates relatively lower than historical levels affecting interest earning on investments. The 2022 budget includes a decrease in interest income of \$277,000, or 62%, decrease in earnings from operating funds investments as the average rates continue to decline.

The equity market returns continue to exceed actuarial assumptions which caused the annual pension costs to decreased by \$0.7 million resulting in a contribution of \$0.7 million in 2022.

The chemical, metal and fuel commodity market prices are impacted by the economy's health and have been volatile in the past couple of years. Approximately 10% of the District's expenses are related to chemical, metal and fuel markets. The 2022 budget reflects the commodity prices available in mid-2021.

For the most part, material and supplies have not been disrupted by supply chain issues but have seen some delayed deliveries and increased transportation fees.

### Regulatory Mandates

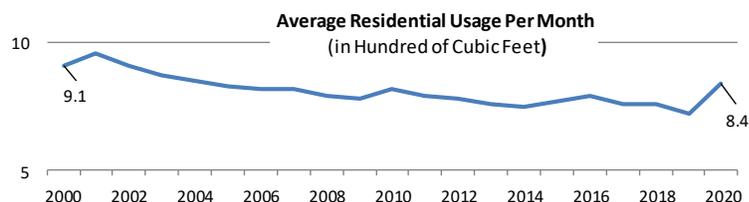
The water and wastewater industry must comply with various federal and state regulations with two of the most important regulations being the Safe Drinking Water Act (SDWA) and Clean Water Act (CWA). Regulatory focus has been the compliance with the long-term surface water disinfection rule under the SDWA and the combined sewer overflow requirements under the CWA. The 2022 Budget includes the impact of debt service of \$14.1 million in capital expenditures and approximately \$200,000 in operating expenses addressing these two focus areas.

### Capital Project Funding from ARPA

Through the American Rescue Plan Act (ARPA), the Federal government has allocated significant dollars to state, local and county governments that may be used for water and sewer projects. The District has provided a list of potential projects that could be funded. As of the date of the budget, the District has not been awarded any funds.

### Water Consumption

Though the District has ample supply of water, consumers have reduced their water consumption. Prior to last year, the average residential household usage (HCF) has declined by more than 20% since 2000. Due to the pandemic and customers staying home more, usage was higher. Some of the reasons for the long-term decline are rising wastewater fees encouraging conservation and the availability of more water efficient household appliances.



## Significant Budget Uncertainties

During the budget development, certain assumptions are made. Several budget areas have significant uncertainties including the following:

Salaries and Wages (\$12.79 million or 25.5% of total budget). The current contract for Union employees, 58.6% of the labor budget, will expire at the end of October 2021, two months before the beginning of the budget year. Non-union pay rates were assumed to increase by 2.0% effective January 1, 2021.

In addition, the operating budget assumes 15,069 hours of overtime and doubletime pay. The amount of overtime and doubletime is directly related to amount of emergency repair work that is needed. Additional hours were included in the budget to assist in the implementation of the new Asset, Billing and Customer Relations computer system, though the actual hours needed are unknown. For every additional 1,000 hours of overtime/doubletime pay, costs increase by approximately \$42,271.

Purchased Power (\$2.09 million or 4.0% of total budget). Electricity costs consist of delivery charges purchased from Central Maine Power (\$1,073,917) and energy costs purchased from Constellation Energy (\$1,012,805). Typically, CMP implements a rate adjustment effective July 1<sup>st</sup>. The amount of the 2022 increase is unknown. The 2022 budget assumes a 3% increase. For every variance of 1%, the budget would be impacted by approximately \$10,700. Energy contracts lock in the prices for the whole year.

The actual amount of electricity used varies primarily based on weather conditions, which impacts the amount of water produced and wastewater processed. In the last five years the variance between the highest and lowest kilowatt amount of electricity for individual accounts in total is 5%, which would impact the budget by approximately \$105,000.

Chemicals (\$1.30 million or 2.6% of total budget). The chemical contract is put out to bid each December. Prices used for the budget are estimates using the June market prices. Chemical prices have been volatile and have reacted to the global/national economy.

Biosolids Disposal (\$2.33 million or 4.7% of total budget). The volume of material left at the end of the wastewater process can vary significantly based on weather and operational challenges. A key measurement is the percent of solids left after removing as much water as possible from the material. The 2022 budget assumes 21%. In the past 5 years, the average has varied from 18% to 22%. A 1% difference is approximately \$116,700.

In addition, the per wet ton disposal rate with the vendor is based on the consumer price index and other factors. The final price will not be determined until sometime during Q1 2022. The budget estimates a rate of \$100/wet ton. Given the projected volume of biosolids, each dollar of change in the rate is \$23,335.

Weather The weather is a noteworthy determinant of operating expenses. The timing and duration of below freezing weather impacts the number of water main and service leaks. The amount of snowfall and timing of snow melt and rainfall impacts the amount of storm water that must be pumped to and treated by wastewater plants. The duration of hot summer days impacts the amount of water produced by the water treatment facility. For this budget, the past three-year average of water produced and wastewater treated was assumed for operating expenses projections.

## Major Policy and Resource Allocation Decisions

### Operating Budget

Personnel. The authorized headcount was increased by one (1), the addition of an Associate Engineer in Instrumentation. In addition, two positions were upgraded. In Wastewater Treatment, a Wastewater Operator was upgraded to a Wastewater Maintenance Operator. In Instrumentation, a SCADA Technician position was upgraded to a SCADA Technician III.

Overall, the budget continues our emphasis on training employees with the continued goal of providing an average of 80 hours training.

New billing/customer relations and computerized maintenance management systems are being configured and integrated with a timeline to go live in 2022. These significant projects will impact every employee at the District, ten of whom are dedicated to the implementation.

Employee Benefits The costliest employee benefits are health insurance and pension benefits. Health insurance premiums increased by 7.0%, and when also factoring in shifts in employee usage, this resulted in a budget increase of 8.1% (\$246,764). The defined benefit plan contributions in the 2022 Budget decreased by \$725,682 due to the rising market value of plan assets. Overall pension related expenses were down \$669,257 (33.9%).

Wastewater Sewer Lines Inspection In 2008, a commitment was made to inspect all sewer lines at least once every 10 years. In 2022, \$61,250 was allocated to meet that commitment.

Wastewater Combined Sewer Overflow (CSO) Monitoring To assist the municipalities in meeting their federal CSO requirements, the District remotely monitors the flow. In 2022, \$154,000 was allocated to meet their request.

Water System Flushing Starting in 2012, a renewed effort was made to flush the whole distribution system over a 3-year cycle. Flushing the system improves the water quality in the distribution system. The 2022 budget continues this effort by allocating close to \$101,000.

Renewal and Replacement - The annual commitment of current revenue committed to capital projects increased to \$4.5 million which is an increase of \$0.3 million over last year's budget. Increased contribution made for the Douglass Street office, technology and Portland wastewater system. The contribution meet or exceed expected expenditures except in the Water (\$810,000), Portland (\$225,000) and Windham (\$5,400) funds. Those funds have adequate surplus balance to cover the annual deficit.

Biosolids –The budget assumes a disposal rate of \$100/wet ton, that is a 11.1% increase over the 2021 Budget assumption of \$90/wet ton. It is expected that issues with per- and poly-fluoroalkyl substances (PFAS) will impact the price. In addition, the State of Maine has put in place a \$10/wet ton regulatory fee to deal with issues regarding PFAS. The impact to the 2022 Budget is estimated at \$233,350.

## Major Policy and Resource Allocation Decisions (continued)

### Capital Projects

The 2003 water strategic master plan noted that a considerable amount of water mains will be reaching the end of their useful life in the next 20 years. In 2022, the amount dedicated to replace aging water mains will be \$8.8 million. In 2022, part of the \$8.8 million (\$500,000) will be dedicated to replace smaller mains. Water Services has included additional staffing due to the level of effort allocated to water main inspection.

Other significant capital projects include the following:

- Portland's East End Wastewater Treatment Plant: Significant upgrades are planned (\$6.1 million), including the primary sludge handling and gallery upgrades.
- Pump Station upgrades in Cape Elizabeth (Ottawa Road - \$ 350,000 ), Portland (Stroudwater - \$510,000) and Windham (Route 202 - \$70,000)
- Windham Wastewater Treatment System: In 2022, the Town will review a preliminary engineering study on the construction of a new treatment facility in the North Windham area and decide whether to move forward. The 2022 Budget incorporates the project costs assuming the project moves forward in 2022.
- Several projects started in previous years will be completed including Ward's Hill water tank construction (\$2.5 Million), Westbrook Regional Wastewater Treatment Plant aeration system (\$12 million) and Portland's East End Electricity Upgrade (\$4.8 million and Baxter Boulevard Pump Station (\$2.2 million).

### Revenues

To balance the desire to provide funding for infrastructure improvement and operational needs with keeping water rates affordable, the Board adopted a policy of small modest annual increases close to the rate of inflation. A 3.7% increase is planned to be implemented with an effective date of March 1, 2022.

The December 2020 3.4% increase includes allocating 1.0% to the Capital Reserve fund. The Maine Public Utilities Commission adopted a rule in 2013 allowing the District to increase water rates up to 10% of water revenues and dedicate revenues for capital improvement. After the proposed increase, the percent of water revenue allocated to the Capital Reserve annually will be 8.0%. The proposed budget assumes the additional reserve will be used to pay the debt service of \$2 million bond to finance replacing aging water mains.

## 2022 Operating Budget Summary

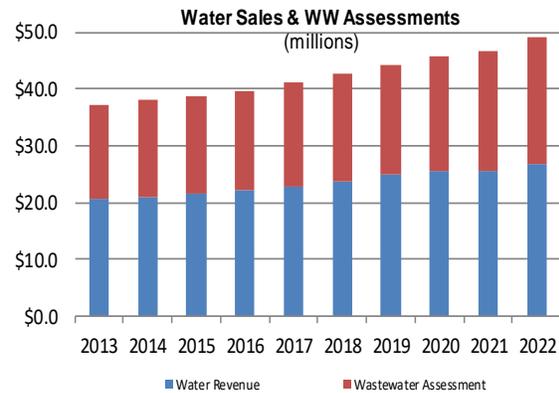
The proposed budget includes \$50.22 million in revenues and \$50.06 million in expenses.

### Revenues

The two major revenue sources are water sales (\$26.82 million or 53.4% of total revenue) and wastewater assessment revenues (\$22.35 million or 44.5% of total revenue). Wastewater revenues have increased from \$16.58 million (34.8%) since 2013 principally due to addressing capital needs requested by municipalities or aging infrastructure.

Water revenues are generated from potable water and sprinkler charges to individual customers, and public fire protection charges to municipalities. The 2022 Budget assumes an increase of 3.7% over current rates effective March 1, 2021.

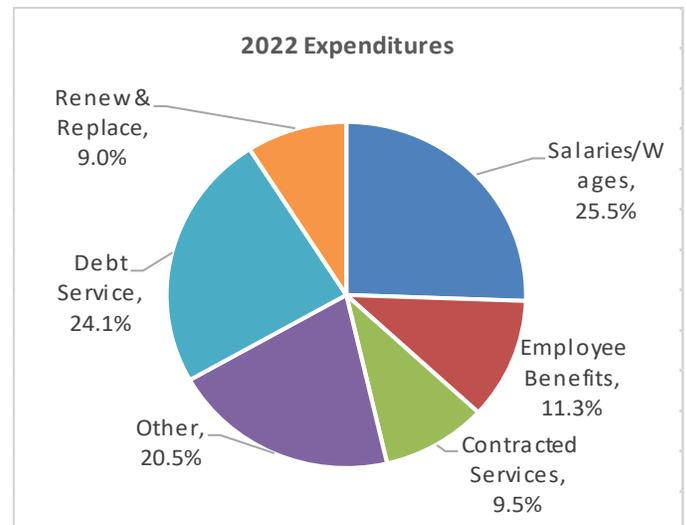
Wastewater assessments are the amounts billed individual municipalities to provide collection, sewer treatment, interception, utility billing services and, by request, collection and billing services. Assessments in 2022 increased 6.0% overall (\$1.26 million).



### Expenses

Operating Expenses increased to \$50.06 million, an increase of 4.4%.

Personnel Costs, (Salaries/Wages and Employee Benefits) which are 36.8 % of the total budget, increased 2.2% due to the average labor rate increase of 2.0% and one additional headcount offset by a reduction of 8.7% in benefit rate. Debt Service (24.1% of expense) increased 7.9% due to new debt issues. Contracted Services (\$4.74 million) increased 6.6% (\$295,479). Renewal and Replace contributions increased \$291,651 (6.9%) while Other Expense increased \$681,482 (7.1%).



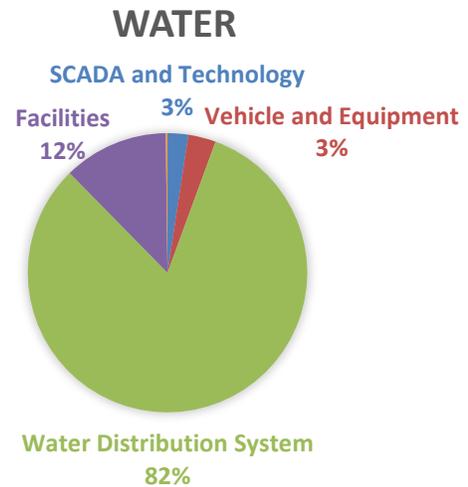
## 2022 Capital Budget Summary

The proposed Capital Budget is \$30.66 million with projects for the water and wastewater funds of \$12.52 and \$18.14 million, respectively.

### Water

Of the \$12.52 million in water capital projects, the largest component (82%) involves the renewal of water distribution assets such as mains, services, meters and hydrants. The other categories include water facilities and security (12%), vehicles and equipment (3%), technology and SCADA (2%) and water supply (<1%). A multi-year project to upgrade the HVAC system at Douglass St. (the district's main office building & garage) will be ongoing from 2022 through 2024. The lake patrol boat is expected to be replaced and the final phase of the Douglass St. roof completed.

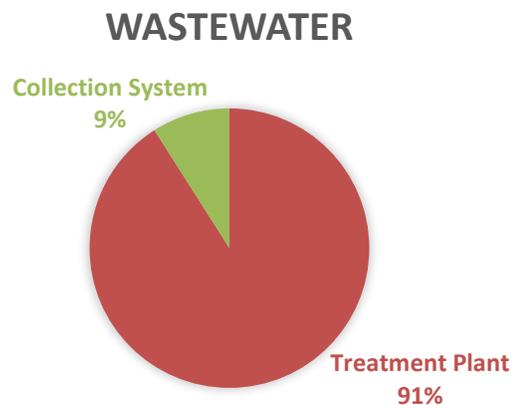
The projects will be funded by issuing \$8.30 million in bonds and utilizing \$4.22 million in drawdowns from renewal and replacement funds.



### Wastewater

The wastewater capital plan includes a wide variety of projects. The Ottawa Rd. PS upgrade, \$350k, in Cape Elizabeth was postponed to 2022. \$510k was added for the upgrade of the Stroudwater PS and also \$400k to replace the force main on Baxter Blvd, both of which are in Portland. On the treatment facility side, \$4.8m is expected to upgrade the primary sludge handling and primary gallery at the East End WWTF. Also at East End, a new standby generator will be installed. The design of the new North Windham treatment system was done in 2021. \$10m is planned for the construction of that system in 2022.

The projects will be funded by issuing \$16.56 million in bonds and by utilizing \$1.58 million in drawdowns from renewal and replacement funds.



## 2022 Combined Water and Wastewater Operating Funds

Total revenues are \$50.22 million, \$2,296,755 or 4.8% higher than last year's budget. The Budget proposes a 3.7% water rate increase, along with a 3.6% increase for Public Fire Protection, effective March 2022. Wastewater Assessment increases for the full year are budgeted in Cape Elizabeth (12.3%), Cumberland (1.7%), Gorham (10.5%), Portland (3.9%), Westbrook (9.3%) and Windham (26.2%).

Operating Expenses are \$50.06 million, an increase of 4.4%. The following pages provide additional detail.

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Beginning Fund Balance</b>	<b>\$12,662,035</b>	<b>\$12,077,892</b>	<b>\$12,825,727</b>	<b>\$12,077,936</b>		
Water Sales	26,163,382	12,347,674	25,660,964	26,824,845	1,163,881	4.5%
Assessment Income	20,218,572	10,541,868	21,083,736	22,346,196	1,262,460	6.0%
Contracted Billing Income	212,460	106,398	212,796	220,236	7,440	3.5%
Interest Income	581,973	21,593	276,655	104,660	-171,995	-62.2%
<u>Other Income</u>	<u>811,843</u>	<u>346,825</u>	<u>691,482</u>	<u>726,451</u>	<u>34,969</u>	<u>5.1%</u>
Total Revenue	47,988,230	23,364,358	47,925,633	50,222,388	2,296,755	4.8%
Salaries & Wages	11,857,086	6,098,229	12,516,650	12,788,195	271,545	2.2%
Employee Benefits	5,189,183	2,910,089	5,979,151	5,669,276	-309,875	-5.2%
Biosolids Disposal	1,704,001	1,065,931	2,181,420	2,333,500	152,080	7.0%
Chemicals	1,239,730	558,134	1,363,231	1,296,355	-66,876	-4.9%
Contracted Services	4,562,044	2,073,519	4,449,292	4,744,771	295,479	6.6%
Deferred Cost W/O	450,410	0	0	0	0	n/a
Heat/Fuel Oil	320,128	203,479	328,901	367,960	39,059	11.9%
Insurance	253,633	116,973	222,707	260,142	37,435	16.8%
Materials & Supplies	1,508,430	768,881	1,722,510	1,819,287	96,777	5.6%
Other Expense	701,970	212,799	769,906	708,958	-60,948	-7.9%
Purchased Power	1,859,039	914,361	1,896,317	2,086,722	190,405	10.0%
Regulatory/Taxes	310,568	160,944	300,696	560,236	259,540	86.3%
Tele/Other Utilities	411,800	211,784	386,574	433,662	47,088	12.2%
Transportation	988,095	513,186	1,197,317	1,222,561	25,244	2.1%
<u>(less) Trans Offset</u>	<u>-704,306</u>	<u>-403,210</u>	<u>-803,190</u>	<u>-841,512</u>	<u>-38,322</u>	<u>4.8%</u>
Department Expense	30,651,811	15,405,099	32,511,482	33,450,113	938,631	2.9%
Debt Service & Lease Expense	10,556,997	5,429,272	11,190,042	12,078,647	888,605	7.9%
Renewal & Replacement - Direct	4,477,349	1,622,425	3,244,849	3,446,500	201,651	6.2%
Renewal & Replace - Indirect	1,050,000	480,000	960,000	1,050,000	90,000	9.4%
<u>Renewal &amp; Replacement - Contracted</u>	<u>30,000</u>	<u>15,000</u>	<u>30,000</u>	<u>30,000</u>	<u>0</u>	<u>0.0%</u>
Operating Expense	46,766,157	22,951,796	47,936,373	50,055,260	2,118,887	4.4%
Current Surplus (Deficit)	1,222,073	412,562	-10,740	167,128		
Transfer to R&R	-1,043,502	0	0	0		
Transfer to Capital Reserve	-148,603	-62,527	-125,054	-180,036		
Return of WW Accumulated Surplus	-614,111	0	0	0		
<b>Ending Fund Balance</b>	<b>12,077,892</b>	<b>12,427,927</b>	<b>12,689,933</b>	<b>12,065,028</b>		

## 2022 Combined Operating, Capital and Grant Funds

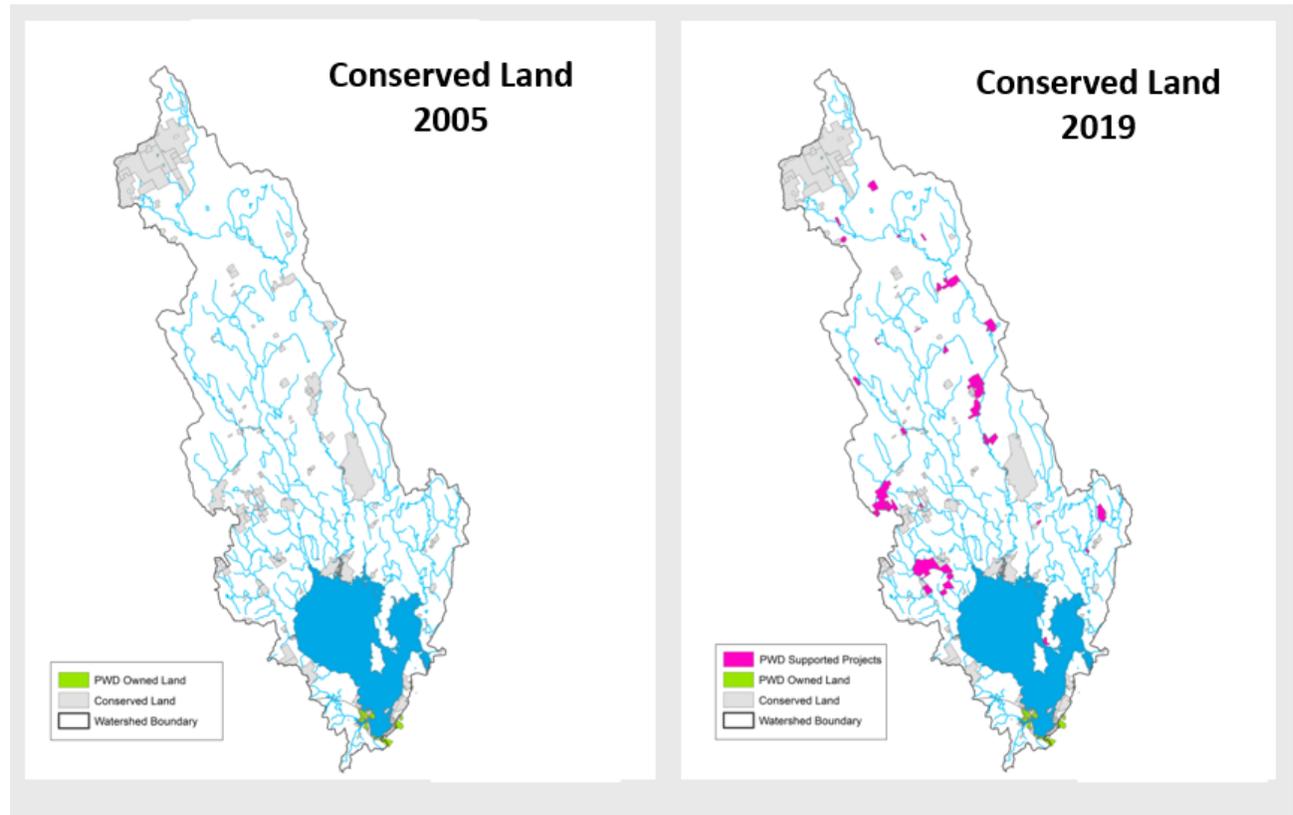
The total combined revenue and funding for 2022 is \$80.89 million, total combined expenditures are \$80.74 million. The combined budgeted surplus for 2022 is \$146,375.

Operating fund details are included in Operating Revenues, Departmental Expense and Human Resources Sections. Capital funds details are included in the Capital Finance and Capital Expenditures Sections. The Budget by Fund Section provides a summary of the Operating and Capital budget by individual enterprise fund – water fund and six (6) wastewater funds for each community provided with wastewater service.

	Operating	Capital	Land Fund	Total
Water Sales	\$26,824,845	-	-	\$26,824,845
Assessment Income	22,346,196	-	-	22,346,196
Water Bond	-	8,300,000	-	8,300,000
Water R&R	-	4,220,000	-	4,220,000
Wastewater Bond	-	16,555,000	-	16,555,000
Wastewater R&R	-	1,580,000	-	1,580,000
Contracted Billing Income	220,236	-	-	220,236
Interest Income	104,660	-	12,700	117,360
Other Income	726,451	-	-	726,451
<b>Total Revenue</b>	<b>50,222,388</b>	<b>30,655,000</b>	<b>12,700</b>	<b>80,890,088</b>
Salaries & Wages	12,788,195	473,808	-	13,262,003
Employee Benefits	5,669,276	190,243	-	5,859,519
Biosolids Disposal	2,333,500	-	-	2,333,500
Chemicals	1,296,355	-	-	1,296,355
Contracted Services	4,744,771	29,188,338	-	33,933,109
Heat/Fuel Oil	367,960	-	-	367,960
Insurance	260,142	-	-	260,142
Materials & Supplies	1,819,287	712,912	-	2,532,199
Other Expense	708,958	-	-	708,958
Purchased Power	2,086,722	-	-	2,086,722
Regulatory/Taxes	560,236	-	-	560,236
Tele/Other Utilities	433,662	-	-	433,662
Transportation	1,222,561	89,699	-	1,312,260
Trans Offset	(841,512)	-	-	(841,512)
Operating Expense	33,450,113	30,655,000	-	64,105,113
Debt Service	12,078,647	-	33,453	12,112,100
Renewal & Replacement - Direct	3,446,500	-	-	3,446,500
Renewal & Replace - Indirect	1,050,000	-	-	1,050,000
Renewal & Replace - Contracted	30,000	-	-	30,000
<b>Total Expense</b>	<b>50,055,260</b>	<b>30,655,000</b>	<b>33,453</b>	<b>80,743,713</b>
<b>Surplus (Deficit)</b>	<b>167,128</b>	<b>-</b>	<b>(20,753)</b>	<b>146,375</b>

## Land Fund

In the 2022 budget document, transactions related to protecting the watershed were separated from the Operating Fund on the Combined Funds statement on the adjacent page. The District has \$1.9 million reserved for activities to protect the watershed land including purchasing conservation easements and contributions to organization supporting such efforts. A three-year \$20,000 pledge has been made to Sebago Clean Waters. In 2020 the District issued its first bond in support of the effort – a \$295,000 bond to purchase a conservation easement on a property in Sebago called Tiger Hills. A federal grant of \$8 million was awarded to the District to assist in watershed protection efforts over the next 5 years.



## GFOA Budget Presentation Award

The Government Finance Officers Association of the United States and Canada (GFOA) presented a Distinguished Budget Presentation Award to Portland Water District, Maine for its annual budget for the year beginning January 1, 2021. In order to receive the award, a government unit must publish a budget document that meets program criteria as a policy document, as an operations guide, as a financial plan, and as a communication device.

This award is valid for a period of one year only. We believe our current budget continues to conform to program requirements, and are submitting it to GFOA to determine its eligibility for another award.



GOVERNMENT FINANCE OFFICERS ASSOCIATION

*Distinguished  
Budget Presentation  
Award*

PRESENTED TO

**Portland Water District  
Maine**

For the Fiscal Year Beginning

**January 01, 2021**

*Christopher P. Morrill*

Executive Director

# Community

## Connections

The Portland Water District is proud to serve the public. As an integral part of the community, we strive to support various causes aligned with our company values and vision.

### \$1,500 DiPietro Memorial Scholarships



In 2021, one scholarship was awarded to Simon Bourque of South Portland. He is attending the Southern Maine Community College.

### Environmental Education

Through our environmental education program, we connect with thousands of students-- teaching about our water resources and encouraging stewardship. Due to the impacts the pandemic has had on school operations, our programs have shifted to providing virtual trainings and online resources.

### Lifeline Water Rates

PWD offers qualified residential customers discounted lifeline water rates.

### Portable Potable Water

The Portland Water District provides various potable water solutions for community events including a portable water fountain, igloo containers, eco cups, and reusable water bottles. Hundreds of bottles have been donated to schools throughout the pandemic.

### Water Bottle Filling Fountain Grants

The Board of Trustees awarded five grants in 2021: South Portland High School, City of Westbrook – Riverbank Park, STRIVE, and Portland Ballet.

### Annual Giving

Along with an active internal giving campaign that involves payroll deductions, the Portland Water District typically hosts a Charity Golf Classic. Due to the pandemic, the 2021 golf tournament was cancelled. Still, employees continued to contribute to charities through payroll deductions and supported a local toy drive.

### Stay The Course Banner

The Stay the Course campaign banner was installed on the India Street Pump Station in Portland. The City of Portland and Creative Portland approached the Portland Water District to participate in the program to remind people to wear masks, wash hands frequently, stay physically distanced and avoid convening in large groups. The 10' x 14' banner showcased a pandemic safety message created by a local artist



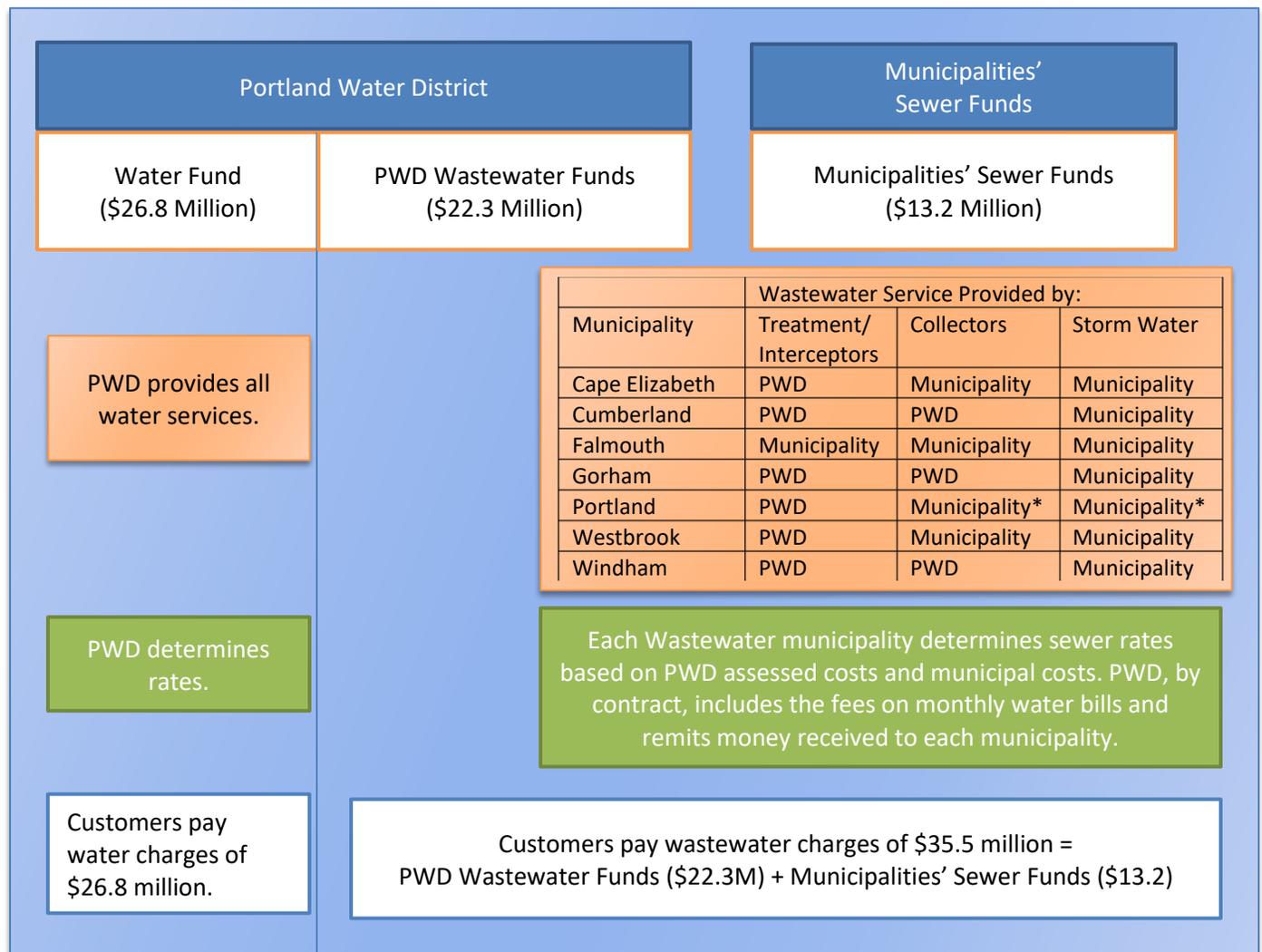
## Introduction

The District uses seven enterprise funds – a water fund and six wastewater funds. The six wastewater funds are for the towns of Cape Elizabeth, Cumberland, Gorham and Windham and the cities of Portland and Westbrook. Each of the seven funds has a separate operating and capital budget appropriation. Details are provided for each fund in the Financial Summary section.

## Relationship between Portland Water District Funds/Municipalities' Sewer Funds and the Ratepayer

The District provides water service directly to ratepayers. The cost of water service is recorded in a separate enterprise fund. The District bills ratepayers' individual monthly charges to the customer.

The District provides certain wastewater services on behalf of six communities – each with a separate enterprise fund. The services provided by the District and Municipality are listed below. The District bills the Municipality for services rendered. The Municipality determines the ratepayers' rates to recover the District bill and their internal costs. The Municipality has requested the District to include these monthly fees on the water bill mailed to the Ratepayers.



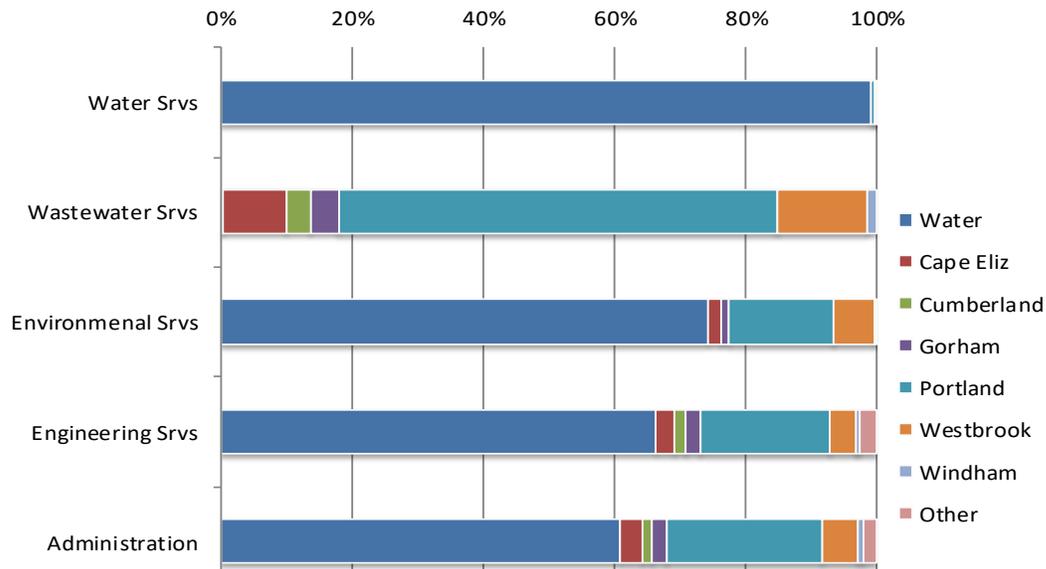
\*By contract, the District maintains collectors and storm drain system on Peaks Island, a small part of Portland

## Relation of Functional Units (Departments) to Funds

As expenses are incurred, each department charges a cost center, which indicates to what fund the expenditure belongs. The totals below show how the costs for each department are spread across the organization. Not surprisingly, 99.2% of the costs of the Water Services department are assigned to the Water Fund and 99.8% of the Wastewater Services department costs go to the Wastewater funds. The expenditures of the remaining departments assign between 60.8% and 74.2% of costs to the Water Fund with the remaining going to the Wastewater funds.

Department	Dept Exp	Water	Cape Eliz	Cumber	Gorham	Portland	Westbr	Windham	Other
Water Svcs	\$9,449,420	99.2%	0.0%	0.0%	0.0%	0.5%	0.1%	0.0%	0.2%
Wastewater Svcs	11,577,567	0.2%	9.7%	3.9%	4.2%	66.9%	13.6%	1.5%	0.0%
Environmental Svcs	2,191,611	74.2%	1.9%	0.0%	1.4%	15.8%	6.4%	0.3%	0.0%
Engineering Svcs	4,443,069	66.1%	3.1%	1.5%	2.4%	19.6%	4.2%	0.5%	2.6%
Administration	6,331,553	60.8%	3.3%	1.7%	2.2%	23.6%	5.6%	0.6%	2.2%
<u>Non-Departmental</u>	<u>298,405</u>	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Department Exp	34,291,625								
(less) Trans Exp	(841,512)								
Fund Expense	33,450,113								

## Allocation of Costs Between Departments and Funds

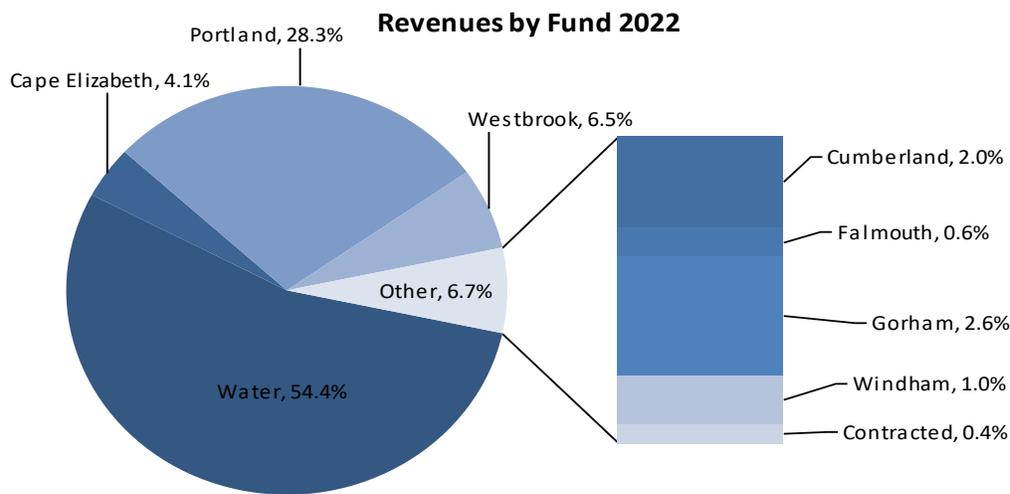


More details on how costs are allocated between departments and funds are included in the Financial Policy section.

## 2022 Operating Budget by Fund Summary

The table provides a summary of all funds and contract billing cost centers with a grand total. The individual fund information is on the following pages.

	Total	Water	Cape Eliz	Cumber	Gorham	Portland	Westbk	Windham	Falmouth/ Contract
Beg Balance	\$12,077,936	\$6,992,486	\$323,540	\$223,633	\$256,767	\$3,563,992	\$638,566	\$49,808	\$29,144
Water Revenue	26,824,845	26,824,845	-	-	-	-	-	-	-
WW Assess	22,346,196	-	2,061,612	1,005,600	1,313,100	13,960,236	3,173,124	518,412	314,112
Contract Billing	220,236	-	-	-	-	-	-	-	220,236
Interest Income	104,660	57,000	2,303	2,209	4,202	20,207	16,938	1,101	700
Other Income	726,451	425,076	-	-	950	250,000	50,200	225	-
	50,222,388	27,306,921	2,063,915	1,007,809	1,318,252	14,230,443	3,240,262	519,738	535,048
Depart Expense	33,450,113	17,513,714	1,511,135	625,096	765,473	10,387,765	2,240,354	246,384	160,192
Debt Service	12,078,647	6,955,606	377,680	297,113	455,469	2,614,353	779,373	249,409	349,645
Renew & Repl	4,526,500	2,657,565	175,100	85,600	97,310	1,228,325	220,535	23,945	38,121
	50,055,260	27,126,885	2,063,915	1,007,809	1,318,252	14,230,443	3,240,262	519,738	547,958
Surplus (Deficit)	167,128	180,036	-	-	-	-	-	-	(12,910)
Xfer-Cap Resrv	(180,036)	(180,036)	-	-	-	-	-	-	-
Ending Surplus	\$12,065,028	\$6,992,486	\$323,540	\$223,633	\$256,767	\$3,563,992	\$638,566	\$49,808	\$16,234

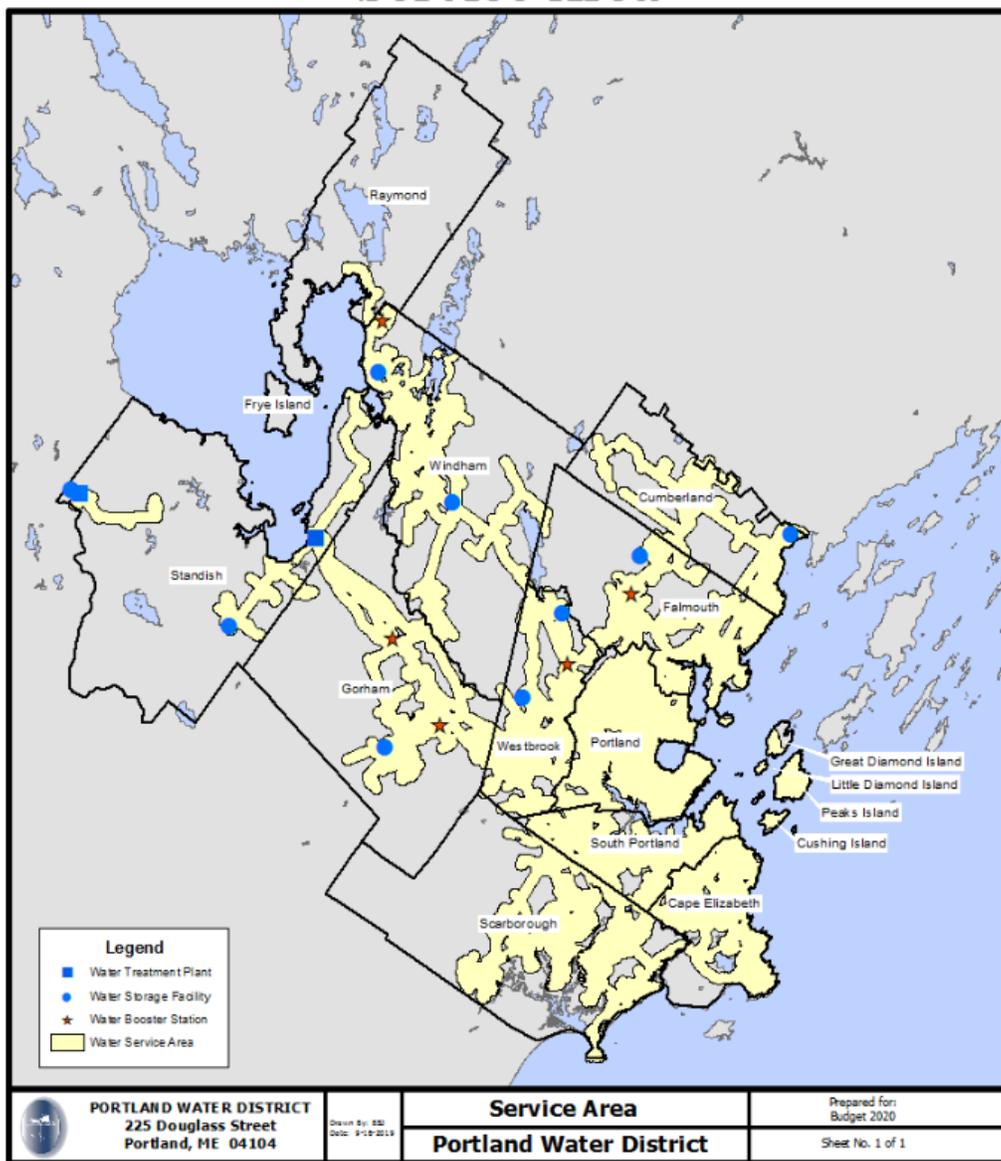


## Fund: Water

### Background

The Portland Water District's charter authorizes the District to provide service to the inhabitants of 11 cities and towns. Approximately 210,000 inhabitants are served potable drinking water. In addition, water for public and private fire protection is provided. Water operation is regulated by the Department of Health and Human Services for water quality and the Maine Public Utilities Commission. Effective January 1, 2016, the Commission granted a waiver from their laws/rules including the Board review of water rate changes, financing transactions, capital reserve and new customer service line standards.

## Portland Water District Service Area



## Fund: Water

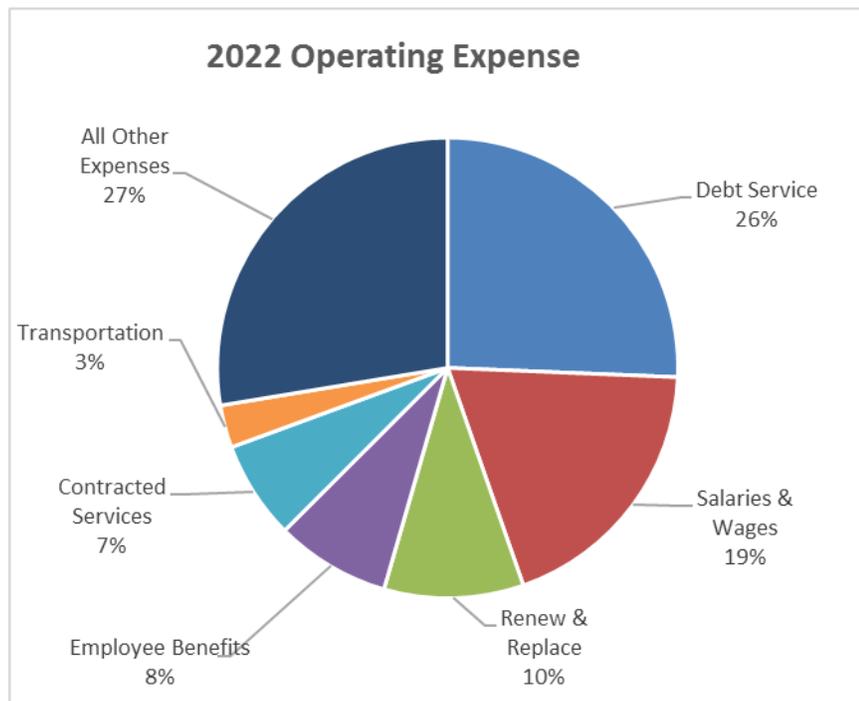
The Portland Water District operates two water systems; the Greater Portland System delivers 21 million gallons of water per day from Sebago Lake and the Steep Falls System delivers 30,000 gallons per day from a single well in Standish. The quality of the water from Sebago Lake is exemplary, and the District was fortunate to receive a waiver from the filtration requirement that is normal for most surface water supplies. In order to maintain this waiver, the District must have an effective source protection program and meet stringent requirements for disinfecting the water.

### 2022 Financial Summary

The proposed 2022 Operating expense and Capital budgets are \$27,126,885 and \$12,520,000, respectively.

Operating Expense was \$889,006 or 3.4%, higher than the previous year. Departmental Expense was up 1.1% (\$182,317) and Debt Service & Lease Expense increased \$617,328 (9.7%) due to newly issued debt. Renewal & Replacement increased 1.1% (\$89,361).

The Capital budget includes \$7 million for distribution main renewals and \$1.8 million for 407 Zone reliability improvements. The upgrade of the HVAC system at Douglass St. (the district's main office & garage) will continue from 2022 through 2024. That will be funded by bonds over a four year period and has an overall budget of \$2,675,000. Other 2022 Capital projects focus on upgrades to water pump stations.



## 2022 Operating Expense Highlights

**Salaries/Wages** – Wage rates increased an average of 2.0% and total hours decreased 3,504 hours (2.0%). The result was an overall increase of \$26,741 (0.5%).

**Employee Benefits** – The benefit rate (including FICA) decreased from 50.59% in 2020 to 46.84% in 2022 due to lower pension expenses. Overall, Employee Benefits expense decreased 6.9% (\$161,648).

**Chemicals** – Costs are budgeted to decrease \$24,138 (4.9%). Liquid Oxygen (down \$24.1k) and Sodium Hypochlorite (down \$19.4k) have dropped due primarily lower per unit costs, 27.9% and 13.4% respectively.

**Contracted Services** – This cost for services provided by third party vendors increased \$230,057 (14.0%). The 2022 Budget included addition dollars for Contractor Construction (\$126k) and Traffic Control (\$66k) to line the budget number more with historical costs.

**Heat/Fuel Oil** – This expense primarily covers the cost of fuel for the generator and heating at the treatment plant. Expense increased 24.7% (\$23,420) due to an increase in the per gallon cost of fuel from \$1.69 to \$2.29/gallon (35.5%) offset by a projected drop in usage (7.3%).

**Purchased Power** – Purchased Power is expected to increase 9.6% (\$35,509). Budgeted demand usage for the treatment facility went up 2.9% however, overall kWhs for this location were down. Demand usage for medium sized accounts also increased. On August 1, 2021 there was a substantial increase to transmission rates, regulated by the Federal Energy Regulatory Commission (FERC). Energy rates for small and medium accounts were reduced by 6%.

**Support Services** – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as administrative time or training) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services allocated to the Water fund increased \$25,615 or 0.5%. Higher costs in Engineering & Environment Services are mostly offset by reductions in Administration.

**Debt Service/Lease Expense** – This is the annual principal and interest payments on bonds issued to finance capital projects. This expense will increase 9.7% (\$617,328). This increase is attributable to new debt issues including for the 407 Zone Transmission Main, the Mackworth Island Main and the Windham Water Tank Design. Overall debt is expected to increase from \$59.3 million at the end of 2021 to \$62.0 at the end of 2022.

**Renewal & Replacement** – These are dollars put aside to fund capital projects. The total for this item is \$2,657,565 in the 2022 budget, an increase of \$89,361 or 3.5%.

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Water Sales	26,163,382	12,347,674	25,660,964	26,824,845	\$1,163,881	4.5%
Interest Income	319,634	9,559	143,433	57,000	-86,433	-60.3%
<u>Other Income</u>	<u>371,001</u>	<u>164,848</u>	<u>433,482</u>	<u>425,076</u>	-8,406	-1.9%
Total Revenue	26,854,017	12,522,081	26,237,879	27,306,921	1,069,042	4.1%
Salaries & Wages	4,902,459	2,557,632	5,134,630	5,161,371	26,741	0.5%
Employee Benefits	2,087,927	1,168,013	2,346,113	2,184,465	-161,648	-6.9%
Chemicals	461,449	208,691	496,947	472,809	-24,138	-4.9%
Contracted Services	1,925,246	738,339	1,637,909	1,867,966	230,057	14.0%
Deferred Cost W/O	301,545	0	0	0	0	n/a
Facilities	100,702	51,981	110,506	110,723	217	0.2%
Heat/Fuel Oil	99,077	56,772	94,863	118,283	23,420	24.7%
Insurance	69,380	14,919	28,867	32,707	3,840	13.3%
Materials & Supplies	581,191	306,061	722,774	756,741	33,967	4.7%
Other Expense	311,107	23,621	175,597	126,759	-48,838	-27.8%
Purchased Power	350,567	187,654	368,215	403,724	35,509	9.6%
Regulatory/Taxes	261,268	150,855	256,046	282,186	26,140	10.2%
Tele/Other Utilities	86,335	49,588	89,365	96,250	6,885	7.7%
Transportation	666,749	354,614	806,755	811,305	4,550	0.6%
SS - Administration	3,429,850	1,801,444	3,926,538	3,880,027	-46,511	-1.2%
SS - Engineering Services	958,683	469,101	920,289	974,057	53,768	5.8%
SS - Environmental Services	102,634	47,278	105,700	122,535	16,835	15.9%
<u>SS - Water Services</u>	<u>60,523</u>	<u>27,070</u>	<u>110,283</u>	<u>111,806</u>	<u>1,523</u>	<u>1.4%</u>
Operating Expense	16,756,692	8,213,633	17,331,397	17,513,714	182,317	1.1%
Debt Service & Lease Expense	6,000,073	3,098,409	6,338,278	6,955,606	617,328	9.7%
Renewal & Replacement - Direct	2,800,000	982,000	1,964,000	2,000,000	36,000	1.8%
<u>Renewal &amp; Replace - Indirect</u>	<u>661,381</u>	<u>302,102</u>	<u>604,204</u>	<u>657,565</u>	<u>53,361</u>	<u>8.8%</u>
Total Expense	26,218,146	12,596,144	26,237,879	27,126,885	889,006	3.4%
Current Year Surplus (Deficit)	635,871	-74,063	0	180,036		
Transfer to Capital Reserve	-148,603	-62,527	-125,054	-180,036		
Transfer to Renew & Replace	-487,268	0	0	0		
<u>Prior Year Surplus</u>	<u>6,824,529</u>	<u>6,824,529</u>	<u>7,004,267</u>	<u>6,992,486</u>		
Accumulated Surplus	6,824,529	6,687,939	6,879,213	6,992,486		

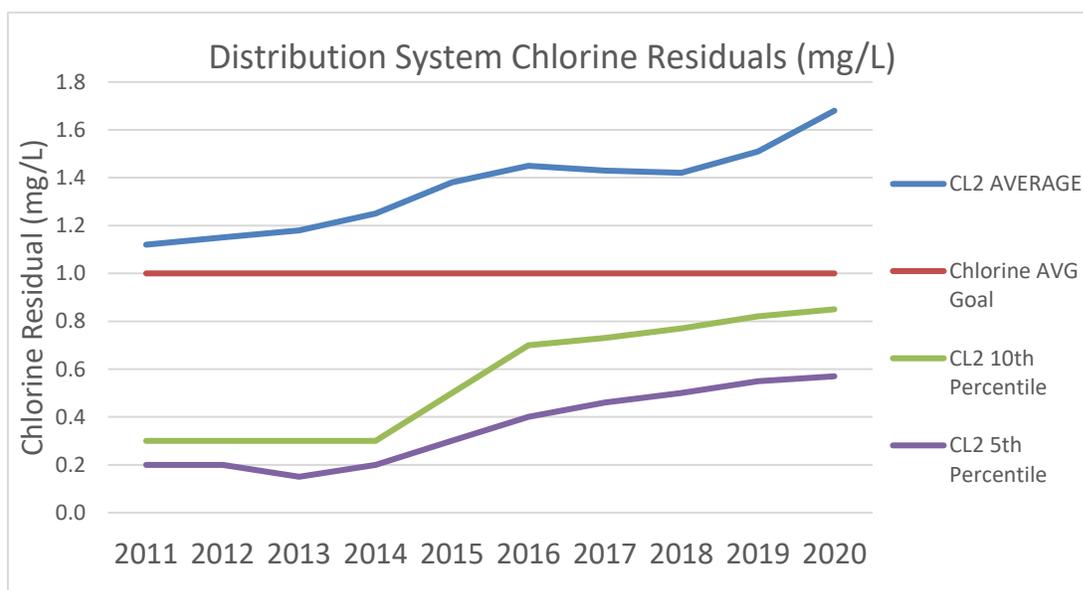
## Operation Summary

The current treatment processes at the Sebago Lake Water Treatment Facility (SLWTF) include ozone, ultra-violet energy (UV) and chloramines for disinfection, fluoridation for dental benefit, and the addition of a corrosion control inhibitor. In order to meet the requirements of the new Long-Term II Treatment Rule, the District installed a UV treatment system in 2014. The construction project also included the replacement of the 20-year-old ozone production system.

The District maintains approximately 1,000 miles of water mains that carry the water from Sebago Lake to customers' homes. During the past few years, more efforts are being focused on the renewal of older water mains in our system. In 2022, the District plans to spend \$7.0 million dollars to replace and upgrade these mains, and intends to maintain this level of investment in order to achieve our renewal objectives. In addition, the Transmission/Distribution group performs operation and maintenance procedures to ensure that our customers experience minimal disruptions in water service.

To meet the growing water demand in Gorham, the new Wards Hill Booster Station was constructed and placed in service during 2018. The old booster station on Route 25 in Gorham is still being used as back-up to the new station. Wards Hill was also constructed to replace the Prides Corner Booster Station in Westbrook. As distribution mains in the area of Route 202 in South Windham are upgraded, the Wards Hill Station will begin supplying water to the 407 Windham area of the District's system, increasing the available flow to this pressure zone. Once the upgrades are complete, the Wards Hill station will replace most of the pumping required of the Prides Corner Booster Station.

Water quality in the distribution system is constantly monitored by routine sampling and through tracking of water quality inquiries. This information is reviewed and shared monthly with office and field employees to help make water quality everyone's responsibility. One of the most important means of ensuring high quality water is the maintenance of an optimized chlorine residual throughout the distribution system. Staff have been working for a few years to increase the residuals at the far ends of the system. As shown in the chart below, the chlorine residuals have significantly increased since the addition of UV in 2014. This additional level of treatment is having a positive effect on the distribution system, especially at the far ends of the mains.



## Operation Summary (continued)

In an effort to improve system operation and prioritize activities, the District joined the Partnership for Safe Water in 2014. The Partnership is a voluntary continuous improvement program that uses optimization methods to improve drinking water systems. Initially, the partnership successfully developed and implemented a self-assessment and optimization program for surface water treatment plants by many organizations; including American Water Works Association, US EPA, Association of Metropolitan Water Agencies, National Association of Water Companies, Association of State Drinking Water Administrators, and the Water Research Foundation.



The District reported basic distribution system data for the first few years. In 2016, District staff began a multi-year process to prepare for what the Partnership refers to as the third-phase submittal. The focus of this work is to help utilities evaluate their own distribution system performance against regulatory requirements and industry Best Management Practices. In areas where improvement is desired, a continuous improvement process supports the creation of short-term and long-term goals.

The Distribution System Optimization Program focuses on topics such as maintenance of system chlorine residuals, hydrant and valve maintenance, management of main breaks, water loss, customer complaints, Cross Connection Control Program, main renewal programs, staffing, and funding. The District is not eligible to join the Treatment Plant Optimization Program because the District has a waiver from filtration.

In future years, the District expects it will adjust and/or change some service standards, develop projects and initiatives to support recommendations, and incorporate industry Best Management Practices into everyday operations.

## Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects. Detailed descriptions of the projects can be found in the Capital Finance and Capital Expenditures sections.

### Expenditures by CIP Year:

	<u>Prior CIP</u>	<u>2022 CIP</u>	<u>Total</u>
Projects:			
<b>Water Only</b>	\$ 2,500,000	\$ 10,610,000	\$ 13,110,000
Total by CIP Year	<u>\$ 2,500,000</u>	<u>\$ 10,610,000</u>	<u>\$ 13,110,000</u>

### Source of Funds:

	<u>R&amp;R Fund</u>	<u>Future Bond</u>	<u>Funding Total</u>	<u>Bond Issue Year</u>
Beginning Balance	\$ 3,712,419			
2022 Contribution	\$ 2,000,000			
Total R&R Balance Available	<u>\$ 5,712,419</u>			
Projects:				
<b>Water Only</b>				
Wards Hill Tank Construction - 3004		\$ 2,500,000	\$ 2,500,000	2023
407 Zone Reliability Improvements - 3067		\$ 1,800,000	\$ 1,800,000	2022
2022 CIP Budget - Water Operations	\$ 1,025,000		\$ 1,025,000	
2022 CIP Budget - Main Renewals	\$ 1,050,000	\$ 6,000,000	\$ 7,050,000	2022
2022 CIP Budget - Water Facilities/Other	\$ 735,000		\$ 735,000	
Total	<u>\$ 2,810,000</u>	<u>\$ 10,300,000</u>	<u>\$ 13,110,000</u>	
Ending Balance	<u>\$ 2,902,419</u>			

## Projections for Rate-Making Purposes

Multi-year projections are made for the water fund to provide an understanding of the future impact on water rates.

### Major Assumptions:

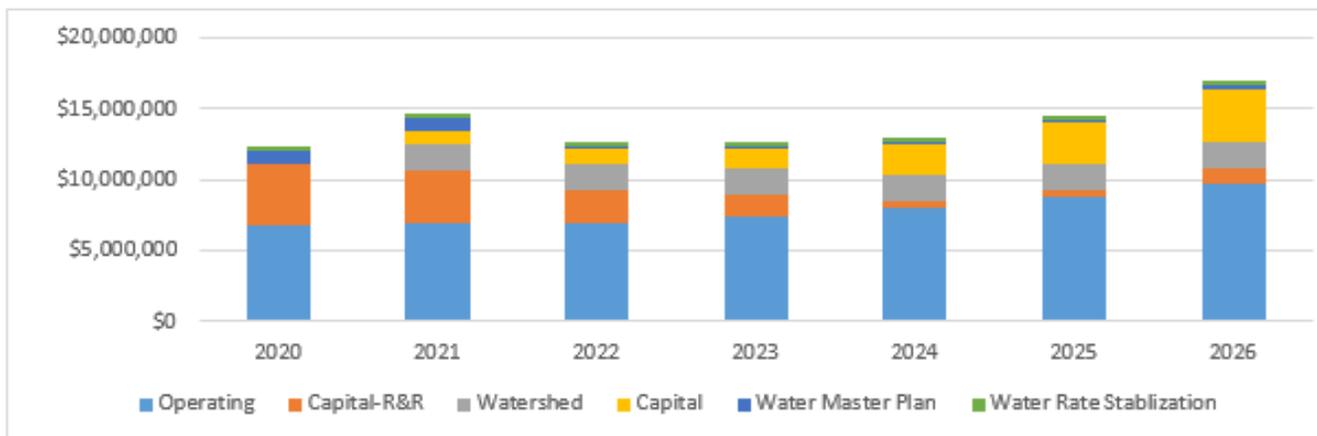
The assumptions incorporated in the projections are as follows:

- Salary increases of 3.0% in 2023 and 2% in other years. No change in number of employees.
- Benefit increases of 10% in 2023 (health insurance increase) and 5% in other years.
- Other expenses increase between 2% and 5% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2022 5-year capital plan. New debt assumed a 20-year life between 1% and 3.5% interest depending on funding source and year of financing. Significant projects includes annual water main replacement (\$7 million in 2022 to \$10 million in 2026), Storage/Transmission system improvements (\$6.6 million) and 407 Zone improvements (\$4 million).

### Summary of Projection Impact:

Water Revenue is projected to increase to \$33,061,859 in 2026, a 23% increase over 2022 Budget, with the most significant cost change related to debt service issued to finance capital projects. Operating Ratios and Reserves are better than target and Capital R&R balance is below the target balance.

### Reserve Fund Balances



### Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

2018	2019	2020	2021	2022	2023	2024	2025	2026
21%	22%	23%	24%	26%	26%	28%	28%	29%

### Debt Service Ratio – Target: Greater or Equal to 125%

2018	2019	2020	2021	2022	2023	2024	2025	2026
182%	152%	157%	141%	141%	143%	145%	149%	148%

## Projections for Rate-Making Purposes (continued)

### Water Fund

#### Operating Fund:

	2020 Actual	2021 Budget	2022 Budget	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
<b>Revenues:</b>							
Water Sales	26,163,382	25,660,964	26,824,845	28,556,594	30,230,414	31,609,216	33,061,859
Interest Income	319,634	143,433	57,000	57,000	62,700	68,970	68,970
Other Income	371,001	433,482	425,076	425,076	425,076	425,076	425,076
<b>Total Revenues</b>	<b>26,854,017</b>	<b>26,237,879</b>	<b>27,306,921</b>	<b>29,038,670</b>	<b>30,718,190</b>	<b>32,103,262</b>	<b>33,555,905</b>
<b>Operating Expenses:</b>							
Salaries & Wages	4,902,459	5,134,630	5,161,371	5,316,212	5,422,536	5,530,987	5,641,607
Employee Benefits	2,087,927	2,346,113	2,184,465	2,402,912	2,523,058	2,649,211	2,781,672
Chemicals	461,449	496,947	472,809	486,993	496,733	506,668	516,801
Contracted Services	1,925,246	1,637,909	1,867,966	1,924,005	1,962,485	2,001,735	2,041,770
Deferred Cost W/O	304,545	0	0	0	0	0	0
Facilities	100,702	110,506	110,723	114,045	116,326	118,653	121,026
Heat/Fuel Oil	99,077	94,863	118,283	121,831	124,268	126,753	129,288
Insurance	69,380	28,867	32,707	33,688	34,362	35,049	35,750
Materials & Supplies	581,191	722,774	756,741	779,443	795,032	810,933	827,152
Other Expense	311,107	175,597	126,759	130,562	133,173	135,836	138,553
Purchased Power	350,567	368,215	403,724	403,724	403,724	403,724	403,724
Regulatory/Taxes	261,268	256,046	282,186	290,652	296,465	302,394	308,442
Tele/Other Utilities	86,335	89,365	96,250	99,138	101,121	103,143	105,206
Transportation	666,749	806,755	811,305	835,644	852,357	869,404	886,792
SS - Administration	3,429,850	3,926,538	3,880,027	4,064,328	4,176,097	4,290,940	4,408,941
SS - Engineering Services	958,683	920,289	974,057	1,020,325	1,048,384	1,077,215	1,106,838
SS - Environmental Services	102,634	105,700	122,535	128,355	131,885	135,512	139,239
SS - Water Services	60,523	110,283	111,806	117,117	120,338	123,647	127,047
	16,759,692	17,331,397	17,513,714	18,268,974	18,738,344	19,221,804	19,719,848
Debt Service	6,000,073	6,338,278	6,955,606	7,507,916	8,278,066	8,639,678	9,324,277
Renewal & Replacement - Direct	2,800,000	1,964,000	2,000,000	2,200,000	2,400,000	2,800,000	2,950,000
Renewal & Replace - Indirect	661,381	604,204	657,565	661,780	661,780	661,780	661,780
Capital Finance Expense	9,461,454	8,906,482	9,613,171	10,369,696	11,339,846	12,101,458	12,936,057
<b>Total Operating Expenses</b>	<b>26,221,146</b>	<b>26,237,879</b>	<b>27,126,885</b>	<b>28,638,670</b>	<b>30,078,190</b>	<b>31,323,262</b>	<b>32,655,905</b>
Current Year Surplus(Deficit)	632,871	0	180,036	400,000	640,000	780,000	900,000
Transfer to Capital Reserve	-635,871	-125,054	-180,036	0	0	0	0
Prior Year Surplus	6,824,529	7,004,267	6,992,486	6,992,486	7,392,486	8,032,486	8,812,486
Accumulated Surplus	6,821,529	6,879,213	6,992,486	7,392,486	8,032,486	8,812,486	9,712,486
Target Balance(25% of budget)	6,555,287	6,559,470	6,781,721	7,159,668	7,519,548	7,830,816	8,163,976
Above/(Below)	266,242	319,743	210,765	232,818	512,938	981,670	1,548,510

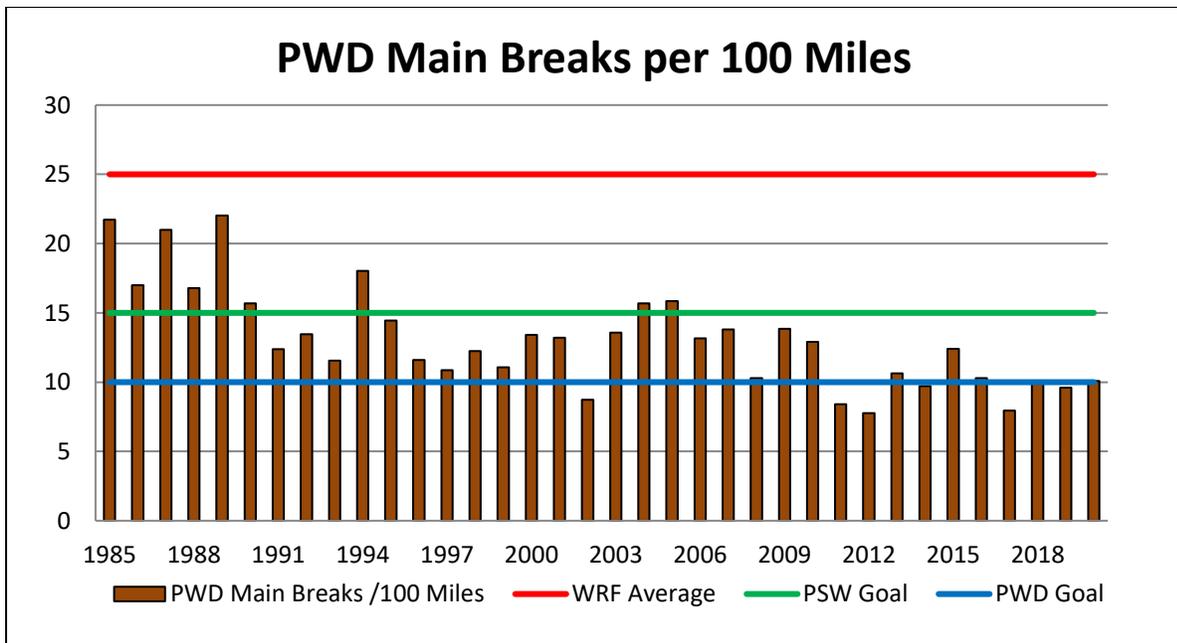
**Capital Expenditures:** (See details in the Capital Expenditure section) Target Balance: \$3,520,000

	2022 Budget	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
R&R Balance BOY	\$ 3,712,419	\$ 2,902,419	\$ 1,502,419	\$ 502,419	\$ 497,419
Contribution	\$ 2,000,000	\$ 2,200,000	\$ 2,400,000	\$ 2,800,000	\$ 2,950,000
Withdrawals	\$ (2,810,000)	\$ (3,600,000)	\$ (3,400,000)	\$ (2,805,000)	\$ (2,300,000)
R&R Balance EOY	\$ 2,902,419	\$ 1,502,419	\$ 502,419	\$ 497,419	\$ 1,147,419

## Water Main Renewals



Our commitment to maintain aging water infrastructure includes replacing water mains. The 2021 budget continues this commitment with planned projects totaling \$7.0 million dollars. The projects will be funded with current year’s revenue (\$1 million) and bond proceeds (\$6 million). The increased investment in main renewal has impacted the number of main breaks.

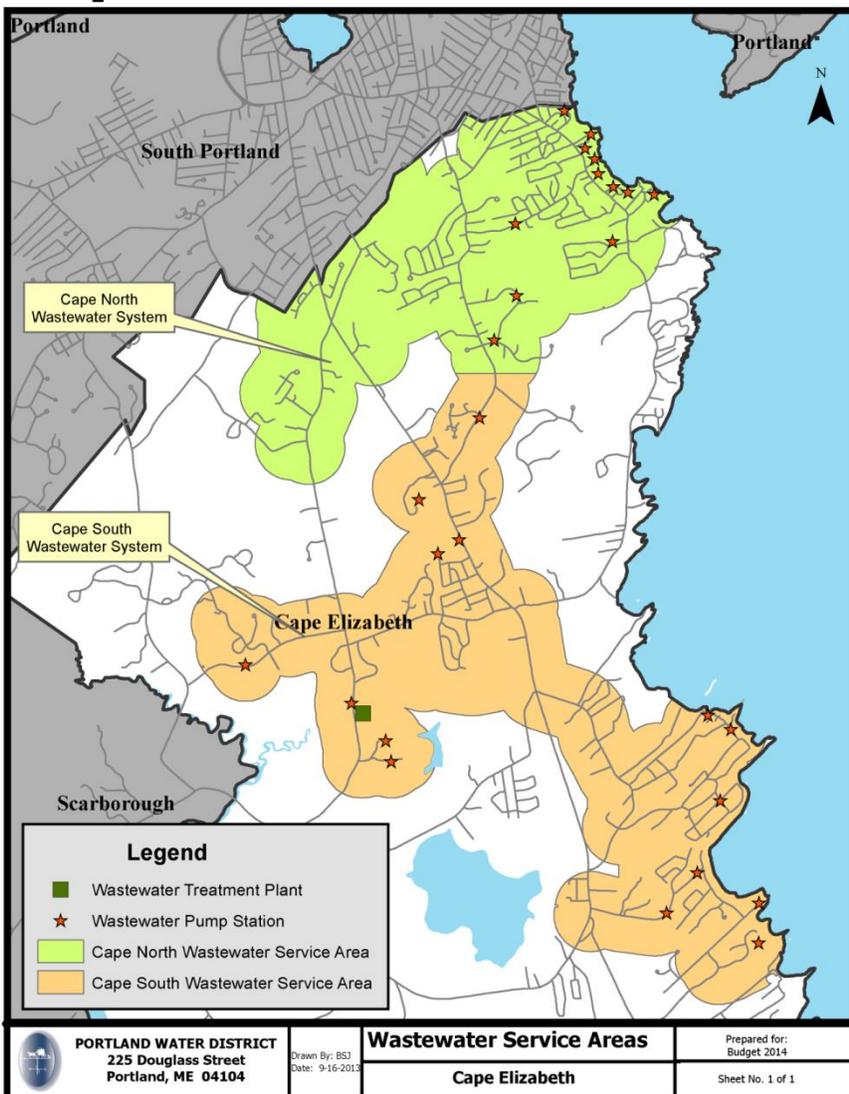


## Fund: Wastewater - Cape Elizabeth

### Background

The Portland Water District’s charter authorizes the District to provide wastewater treatment and collection system-interceptors service to the town. The town maintains most of the collection system but has contracted with the District to maintain several pump stations within that system. The District operates a treatment facility that treats wastewater from the southern section of the town and contracts with the City of South Portland to provide treatment services for the northern section of the town. Additionally, by contract, the District provides utility billing services.

### Cape Elizabeth Wastewater Service Area



#### Summary of Services

##### Provided:

##### Treatment:

Cape South 0.52 million gallons/day

Cape North 0.715 million gallons/day  
(by South Portland’s plant)

##### Collection System:

27 Pump Stations with  
17.1 miles of pipe

##### Utility Billing Services:

Annual Billings of  
\$2,288,754 on 2,413  
Customers (avg.  
\$79.04/month)

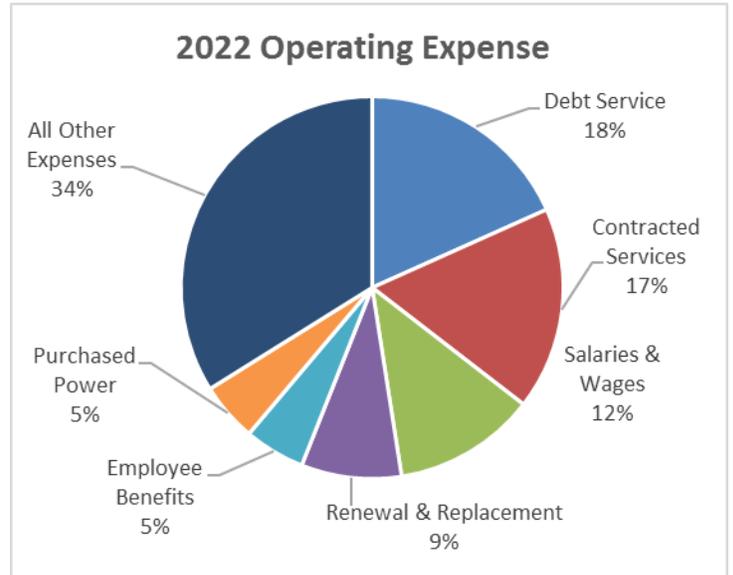
## Fund: Wastewater - Cape Elizabeth

### 2022 Financial Summary

The proposed assessment of \$2,061,612 is a 12.3% increase.

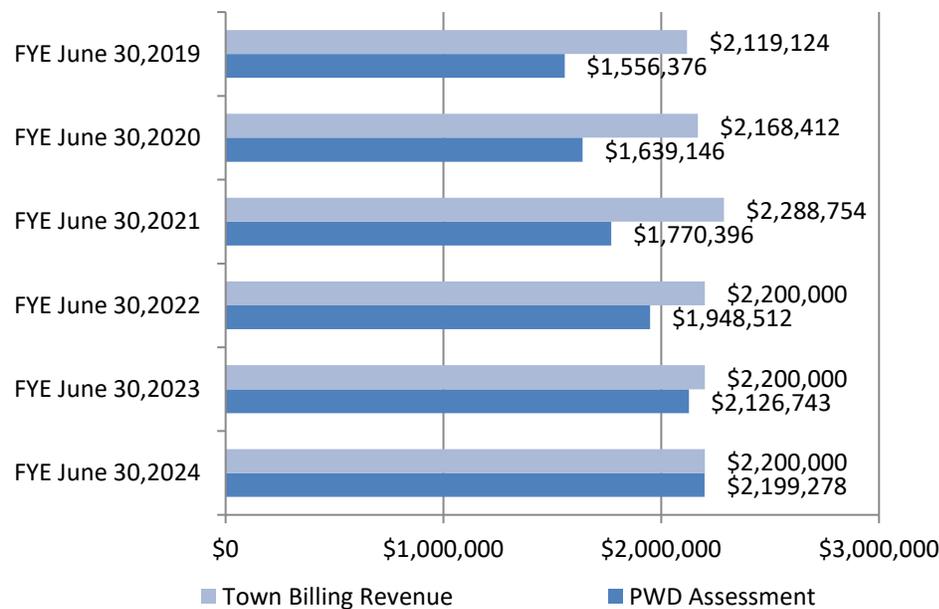
The proposed 2022 Operating Expense and Capital budgets are \$2,063,915 and \$600,000 respectively. The Operating Expense budget increased \$72,988 or 15.2%.

The 2022 Capital budget includes \$350,000 for upgrades to the Ottawa Rd. wastewater pump station (originally in 2021 CIP) and \$125,000 for aeration and clarification upgrades at the wastewater treatment facility. Both are to be bonded in future years, 2023 & 2024 respectively.



### Assessment Compared to Ratepayers' Billing

The municipality's fiscal year end is June 30, while the District's is December 31. The chart below compares the cash as collected by the District for sewer billing on their behalf and the District's assessment for services rendered. The municipality may incur additional sewer-related costs. The municipality determines when to increase the sewer billing rates.



#### Revenue Assumptions:

- Consumption is for the 12 months ending June 30, 2021

- Rates Assumed:

Effective Date:	Base/Per HCF
Mar 2013	\$43/\$5.25
Mar 2014	\$46/\$5.41
Mar 2015	\$48/\$5.57
Mar 2016	\$49.50/\$5.68

## 2022 Operating Expense Highlights

**Salaries/Wages** – Labor hours budgeted increased 10.7% (836 hours). The increase was for additional coverage at the treatment plant. This combined with the average wage rates increase of 2.0% resulted in a 14.7% (\$31,923) increase in Salaries/Wages.

**Employee Benefits** – The benefit rate (including FICA) decreased from 50.59% in 2020 to 46.84% in 2022 due to lower pension expenses. However, additional labor dollars charged resulted the amount of Employee Benefits expense allocated to increase by 5.2% (\$5,200).

**Biosolids Disposal** – The budgeted volume disposed is projected to be 28.3% lower than in the previous budget. That is somewhat offset by a projected increase in the disposal cost of 11.1% (from \$90 to \$100.00/wet ton). The higher unit costs relates to continued regulator and public concern with per- and poly-fluoroalkyl substances (PFAS) with the impact of limiting the available outlets to dispose of biosolids. Overall, Biosolids expense for Cape Elizabeth is projected to decrease \$5.550.

**Contracted Services** – The budget increased 13.0% (\$40,635). The increase was due to an increase in Contracted Treatment Services (\$48.8k) paid to the City of South Portland. Cape Elizabeth pays a percent of the costs at South Portland’s treatment plant based on flows, the City has reduced their flows over the past through years via CSO improves increasing Cape Elizabeth’s flow percentage.

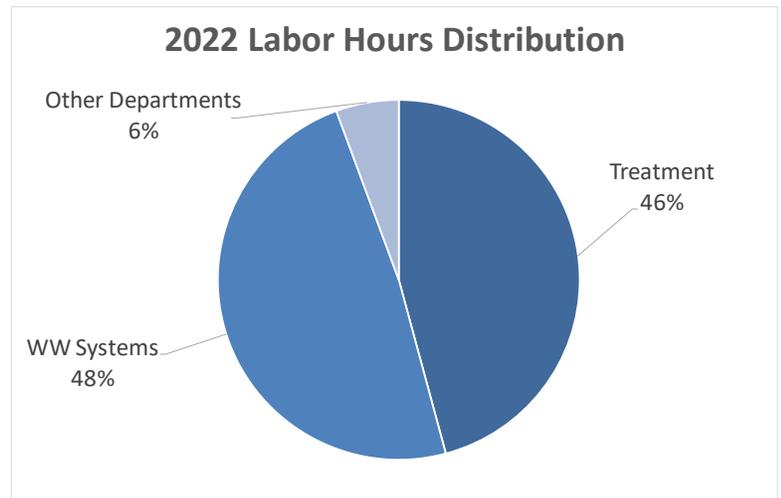
**Heat/Fuel Oil** – The budget increased 11.0% (\$1,893) mostly due to an estimated increase in the cost of heating oil from \$1.69 to \$2.29 per gallon.

**Purchased Power** – The Purchased Power budget increased 19.1% (\$16,476). The treatment facility’s budgeted usage increased by 39.8% largely due to the UV system. Demand also increased at the treatment facility and three pump stations. On August 1, 2021, there was a substantial increase to transmission rates.

**Regulatory/Taxes** – The State of Maine has imposed a \$10.00/wet ton of biosolids regulatory fee to deal with statewide issues regarding PFAS. The impact to this fund is \$2,150 in the 2022 Budget.

**Support Services** – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer service, billing or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services increased \$52,780 or 10.9%.

The pool of Support Services costs only increased 1.1% in the 2022 Budget. However, the factors that drive the allocations (direct labor costs and overall general costs) shifted towards Cape Elizabeth. The Wastewater staffing plan recognized the increasing staffing needs at the treatment plant and other



costs, such as contracted treatment services to the City of South Portland, drove up the general allocation.

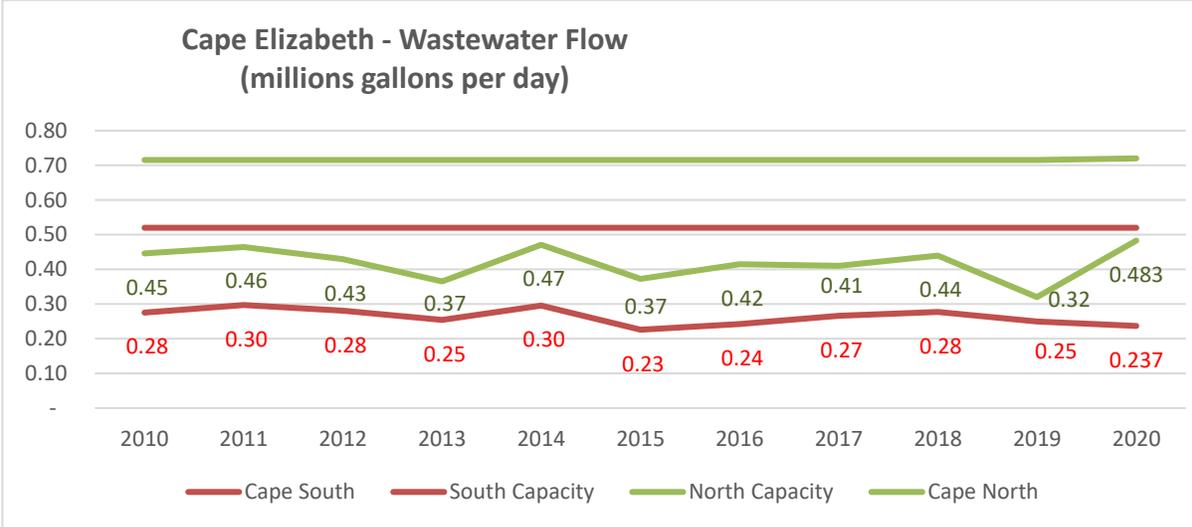
**Debt Service/Lease Expense** – This represents the annual principal and interest payments on bonds issued to finance capital projects. This cost increased \$59,040 (18.5%) from the prior year budget to \$377,680. Bond principal payments are budgeted to increase \$42,250 in 2022 mostly due to a bond issued in 2021 for upgrades at the Little John WWPS and HAVC upgrades at the CEWWTF.

**Renewal & Replacement** – These are dollars put aside to fund capital projects and the replacement of equipment that has served its useful life. A contribution of \$175,100 will be made in 2022.

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$1,705,380	\$917,706	\$1,835,412	\$2,061,612	\$226,200	12.3%
Interest Income	\$14,639	\$347	\$8,000	\$2,303	-\$5,697	-71.2%
<u>Other Income</u>	<u>709</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>n/a</u>
Total Revenue	1,720,728	918,053	1,843,412	2,063,915	220,503	12.0%
Salaries & Wages	218,102	121,842	217,076	248,999	31,923	14.7%
Employee Benefits	93,602	58,056	100,802	106,002	5,200	5.2%
Biosolids Disposal	14,873	9,652	27,000	21,500	-5,500	-20.4%
Chemicals	18,851	10,114	13,867	14,360	493	3.6%
Contracted Services	371,417	149,610	313,645	354,280	40,635	13.0%
Deferred Cost W/O	10,208	0	0	0	0	n/a
Heat/Fuel Oil	17,241	13,618	17,164	19,057	1,893	11.0%
Insurance	5,138	3,529	4,947	7,759	2,812	56.8%
Materials & Supplies	37,221	25,829	40,950	41,100	150	0.4%
Other Expense	882	4,042	1,000	1,000	0	0.0%
Purchased Power	101,179	42,265	86,051	102,527	16,476	19.1%
Regulatory/Taxes	1,497	1,266	1,300	3,450	2,150	165.4%
Tele/Other Utilities	12,601	5,648	23,366	20,769	-2,597	-11.1%
Transportation	32,591	18,182	32,844	33,944	1,100	3.3%
SS - Administration	185,328	97,951	210,920	216,337	5,417	2.6%
SS - Engineering Services	47,032	25,674	83,130	97,060	13,930	16.8%
SS - Environmental Services	30,617	17,170	33,742	36,203	2,461	7.3%
SS - Wastewater Services	151,456	77,860	152,851	183,611	30,760	20.1%
<u>SS - Water Services</u>	<u>1,627</u>	<u>728</u>	<u>2,965</u>	<u>3,177</u>	<u>212</u>	<u>7.2%</u>
Operating Expense	1,351,463	683,036	1,363,620	1,511,135	147,515	10.8%
Debt Service & Lease Expense	288,031	152,408	318,640	377,680	59,040	18.5%
Renewal & Replace - Direct	120,700	67,500	135,000	145,000	10,000	7.4%
<u>Renewal &amp; Replace - Indirect</u>	<u>29,110</u>	<u>13,078</u>	<u>26,152</u>	<u>30,100</u>	<u>3,948</u>	<u>15.1%</u>
Total Expense	1,789,304	916,022	1,843,412	2,063,915	220,503	12.0%
Current Year Surplus (Deficit)	-68,576	2,031	0	0		
Transfer to R&R	0	0	0	0		
<u>Prior Year Surplus</u>	<u>430,575</u>	<u>361,999</u>	<u>456,544</u>	<u>232,540</u>		
Accumulated Surplus	361,999	364,030	456,544	232,540		

### Operation Summary

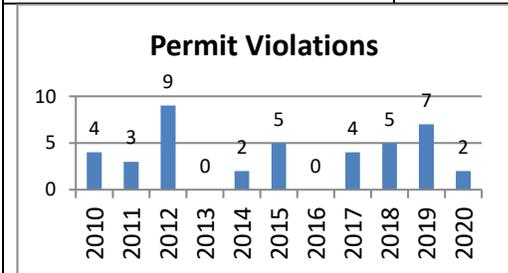
**Wastewater Treatment:** The Cape Elizabeth Wastewater System is comprised of two general areas, North and South. Flow generated in the Northern area is delivered to South Portland for treatment while flow generated in South Cape is treated at the Cape Elizabeth WWTF. The Cape Elizabeth treatment facility is designed to treat 520,000 gallons per day with a peak capacity of 2.75 mgd during wet weather. PWD owns 715,400 gallons per day of capacity at South Portland’s WWTF. The Cape Elizabeth treatment facility is currently operated in a way that provides some nitrogen removal.



In 2020, the flow in the Northern area averaged 0.483 mgd (the month of January 2020 was very wet and provided an extremely high level of flow) and the South Cape flow to the treatment plant averaged 0.237 mgd.

### Effluent Permit Requirements:

Parameter	Discussion
Biological Oxygen Demand (BOD)	Measure of organic material and the strength of pollution. The treatment plant removed 94% of the BOD; well above the required 85% removal.
Total Suspended Solids (TSS)	Measure of suspended material in the incoming wastewater; also the strength of pollution. The treatment plant removed 95% of the TSS, well above the required 85% removal.
Total Residual Chlorine	Used previously for disinfecting the treated effluent, chlorine must be removed before the effluent is discharged. The permit limit was met at all times. The UV disinfection upgrade has eliminated the use of disinfection system chemicals and the need to monitor chlorine residual.
Fecal Coliform Bacteria	Following disinfection, the fecal coliform level is monitored to confirm the treatment plant effluent was properly disinfected.



The Discharge Permit was renewed in late 2016. There were seven (2) effluent permit violations in 2020.

## Operation Summary (continued)

**Wastewater Conveyance – interceptors and pumping stations:** The Ottawa Road CSO Long Term Control Plan was submitted to Maine Department of Environmental Protection in December 2011 and was approved in September 2013. The 5-year plan began in 2014. The plan's projects were designed to lower the frequency and volume of overflow during extreme wet weather events by addressing private sources of infiltration and inflow in the collection systems of Cape Elizabeth and South Portland. Both the Town of Cape Elizabeth and the City of South Portland have completed an inventory of private sources of inflow & infiltration. Cape Elizabeth has installed additional storm drainage and redirected private sources of I/I to the storm sewer system. This effort has addressed 35 of 37 known sources of private I/I in 2018. South Portland has completed a project on Drew Rd. to remove 10 private sources of I/I. The project also lined the collection system pipe in the area to reduce infiltration. This project was completed in 2018. PWD completed a project that increased pumping capacity of the existing pumps at the Ottawa Rd. pump station and will monitor flows to determine if the collective efforts have sufficiently reduced extraneous flows and the volume of CSO overflows. A more complete upgrade of the Ottawa Rd. Pump Station is planned in the coming years.

PWD staff continues to respond and maintain service during various storm events and power failures, while we work to install emergency generators through our Capital Improvement process. This will assist in managing elevated flows during wet weather and often associated power losses. Additional work performed by the Systems group is shown in the table below:

Parameter	2021 Actual to September	2022 Projected
Preventive Work Orders	457	400
Corrective Work Orders	30	50
Wet wells cleaned	39	45
Debris removed (ton)	51.5	40
Dry Weather Overflows	3	0

### 2021 Other Highlights

- Staffing schedules were adjusted to provide more dedicated operator time to operations during daytime hours. This will provide increased resources for enhanced operations, training, cleaning, and general maintenance of the treatment plant.
- Staff has participated in the planned release of the new Asset Management Software system. This system will enhance the scheduling of operations and maintenance activities in our facilities. management computer system will further enable improvements in our effectiveness.
- The Little John Pump Station was completed in 2021.
- Design of the Maiden Cove Pump Station was completed and construction will commence in 2022.
- The treatment plant process evaluation is underway. Some operational insights have already been realized and effluent nitrogen levels have been reduced.
- The percentage of Cape Elizabeth's flow to the South Portland Treatment Plant increased, due in large part to reductions in South Portland wet weather flows.

### 2022 Work Plan

- Flow monitoring will continue to assess the flow reductions that have been realized due to the Ottawa Rd. drainage area I/I flow reduction efforts by Cape Elizabeth and South Portland.
- Design of an upgrade to the Ottawa Rd. Pump Station will result in an upgrade of the station. This will include bypass valving, installation of the new generator, new pumps, upgraded controls, and other miscellaneous improvements.
- The radio network that monitors the various pump stations and treatment plant will be upgraded to replace equipment that served us well over its service life.
- Miscellaneous projects related to the plants aeration system and RAS piping are planned to begin in 2022.

## Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects. Detailed descriptions of the projects can be found in the Capital Finance and Capital Expenditures sections.

### Expenditures by CIP Year:

	<u>Prior CIP</u>	<u>2022 CIP</u>	<u>CIP Total</u>
Projects:			
<b>SCADA</b> - radio modems - 3125 (prorated)	\$ 245,000		\$ 245,000
<b>WW Collection &amp; Pumping</b>			
Maiden Cove PS Upgrades - 3002	\$ 630,000		\$ 630,000
Ottawa Rd PS Upgrades - 3005		\$ 350,000	\$ 350,000
Pump Station R&R - 3130		\$ 25,000	\$ 25,000
<b>WW Treatment</b>			
Security Improvements - 2564		\$ 25,000	\$ 25,000
Treatment Plant R&R - 3129		\$ 25,000	\$ 25,000
Aeration & Clarification Upgrade - 3188		\$ 125,000	\$ 125,000
WAS Piping and RDT Drive - 3213		\$ 50,000	\$ 50,000
Total by CIP Year	\$ 875,000	\$ 600,000	\$ 1,475,000

### Source of Funds:

	<u>R&amp;R Fund</u>	<u>Bond Issue</u> <u>2022</u>	<u>Bond Issue</u> <u>&gt; 2022</u>	<u>Funding</u> <u>Total</u>
Beginning Balance	\$ 525,337			
2022 Contribution	\$ 145,000			
Total R&R Balance Available	\$ 670,337			
Projects:				
<b>SCADA</b> - radio modems - 3125 (prorated)		\$ 245,000		\$ 245,000
<b>WW Collection &amp; Pumping</b>				
Maiden Cove PS Upgrades - 3002		\$ 630,000		\$ 630,000
Ottawa Rd PS Upgrades - 3005			\$ 350,000	\$ 350,000
Pump Station R&R - 3130	\$ 25,000			\$ 25,000
<b>WW Treatment</b>				
Security Improvements - 2564	\$ 25,000			\$ 25,000
Treatment Plant R&R - 3129	\$ 25,000			\$ 25,000
Aeration & Clarification Upgrade - 3188			\$ 125,000	\$ 125,000
WAS Piping and RDT Drive - 3213	\$ 50,000			\$ 50,000
Total	\$ 125,000	\$ 875,000	\$ 475,000	\$ 1,475,000
Ending Balance	\$ 545,337			

**Prorated Projects:** SCADA project costs are 'prorated' based on the assets used by the municipality.

## Projections for Rate-Making Purposes

Multi-year projections are made for each of the wastewater funds’ assessment. The projections provide guidance to the wastewater municipalities to assist them in determining their wastewater sewer rates. A summary of the projection is provided on next page.

### Summary

#### Major Assumptions:

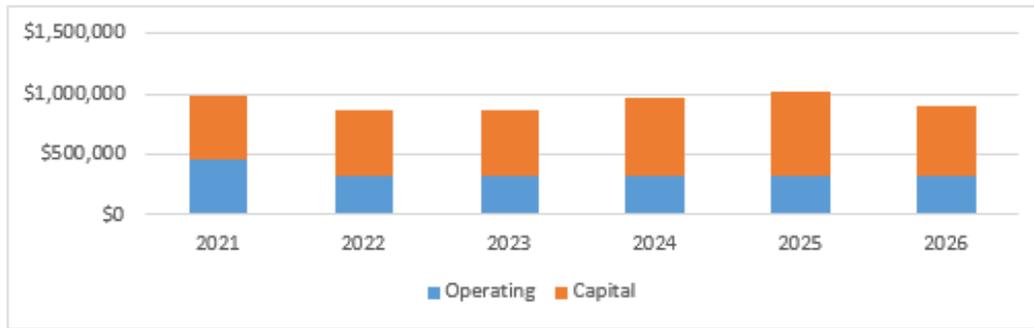
The assumptions incorporated in the projections are as follows:

- Salary increases of 3.0% in 2023 and 2% in other years. No change in number of employees.
- Benefit increases of 10% in 2023 (health insurance increase) and 5% in other years.
- Other expenses increase between 2% and 5% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2022 5-year capital plan. New debt assumed a 20-year life between 1% and 3.5% interest depending on funding source and year of financing.

#### Summary of Projection Impact:

Assessment is projected to increase to \$2,314,216 in 2026, a 12% increase over 2022 Budget, with the most significant cost change related to debt service issued to finance capital projects. Debt Percent of Budget is better than target and the Debt Service Ratio is higher than target but is declining over the coming years. Operating Reserve balance and Capital R&R balance are below the target balances.

#### Reserve Fund Balances



#### Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

2018	2019	2020	2021	2022	2023	2024	2025	2026
15%	15%	17%	17%	18%	20%	21%	26%	26%

#### Debt Service Ratio – Target: Greater or Equal to 125%

2018	2019	2020	2021	2022	2023	2024	2025	2026
165%	150%	153%	151%	146%	140%	138%	129%	129%

## Projections for Rate-Making Purposes (continued)

### Operating Fund:

	2020 Actual	2021 Budget	2022 Budget	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
<b>Revenues:</b>							
Assessment Income	1,705,380	1,835,412	2,061,612	2,191,874	2,206,681	2,332,167	2,314,216
Interest Income	14,639	8,000	2,303	2,303	2,533	2,786	2,786
Other Income	709	0	0	0	0	0	0
<b>Total Revenues</b>	<b>1,720,728</b>	<b>1,843,412</b>	<b>2,063,915</b>	<b>2,194,177</b>	<b>2,209,214</b>	<b>2,334,953</b>	<b>2,317,002</b>
<b>Operating Expenses:</b>							
Salaries & Wages	218,102	217,076	248,999	256,469	261,598	266,830	272,167
Employee Benefits	93,602	100,802	106,002	116,602	122,432	128,554	134,982
Biosolids Disposal	14,873	27,000	21,500	22,016	22,368	22,726	23,090
Chemicals	18,851	13,867	14,360	14,791	15,087	15,389	15,697
Contracted Services	371,417	313,645	354,280	364,908	372,206	379,650	387,243
Deferred Cost W/O	10,208	0	0	0	0	0	0
Heat/Fuel Oil	17,241	17,164	19,057	19,629	20,022	20,422	20,830
Insurance	5,138	4,947	7,759	7,992	8,152	8,315	8,481
Materials & Supplies	37,221	40,950	41,100	42,333	43,180	44,044	44,925
Other Expense	882	2,300	1,000	1,030	1,051	1,072	1,093
Purchased Power	101,179	86,051	102,527	102,527	102,527	102,527	102,527
Regulatory/Taxes	1,497	0	3,450	3,554	3,625	3,698	3,772
Tele/Other Utilities	12,601	23,366	20,769	21,392	21,820	22,256	22,701
Transportation	32,591	32,844	33,944	34,962	35,661	36,374	37,101
SS - Administration	185,328	210,920	216,337	226,613	232,845	239,248	245,827
SS - Engineering Services	47,032	83,130	97,060	101,670	104,466	107,339	110,291
SS - Environmental Services	30,617	33,742	36,203	37,923	38,966	40,038	41,139
SS - Wastewater Services	151,456	152,851	183,611	192,333	147,622	101,682	54,478
SS - Water Services	1,627	2,965	3,177	3,328	3,420	3,514	3,611
	1,351,463	1,363,620	1,511,135	1,570,072	1,557,048	1,543,678	1,529,955
<b>Debt Service</b>							
Renewal & Replacement - Direct	288,031	318,640	377,680	445,841	473,902	613,011	608,783
Renewal & Replace - Indirect	120,700	135,000	145,000	155,000	155,000	155,000	155,000
Capital Finance Expense	29,110	26,152	30,100	23,264	23,264	23,264	23,264
<b>Total Operating Expenses</b>	<b>1,789,304</b>	<b>1,843,412</b>	<b>2,063,915</b>	<b>2,194,177</b>	<b>2,209,214</b>	<b>2,334,953</b>	<b>2,317,002</b>
Current Year Surplus(Deficit)	-68,576	0	0	0	0	0	0
Prior Year Surplus	430,575	456,544	323,540	323,540	323,540	323,540	323,540
Accumulated Surplus	361,999	456,544	323,540	323,540	323,540	323,540	323,540
Target Balance(25% of budget)	447,326	460,853	515,979	548,544	552,304	583,738	579,251
Above/(Below)	-85,327	-4,309	-192,439	-225,004	-228,764	-260,198	-255,711

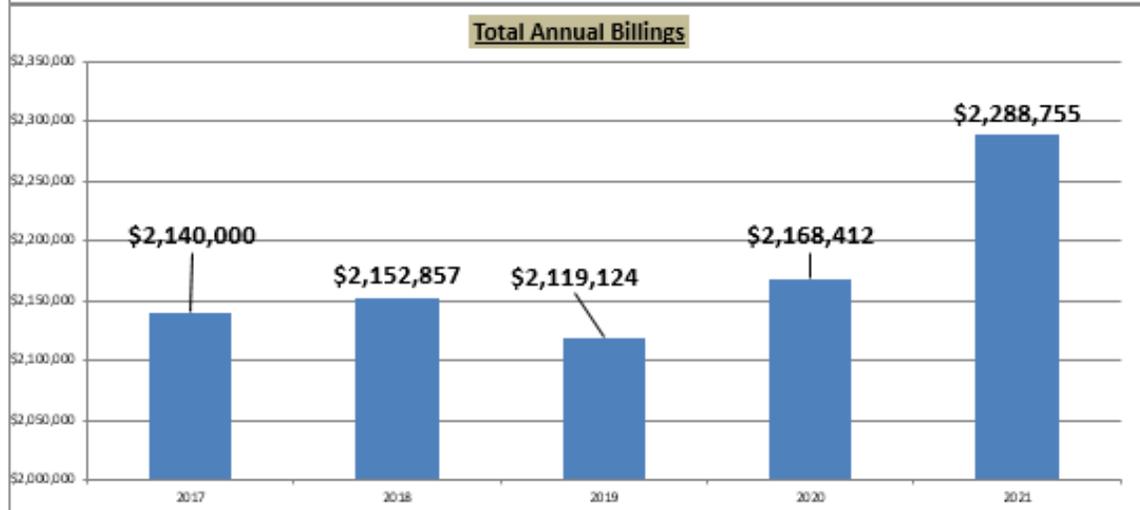
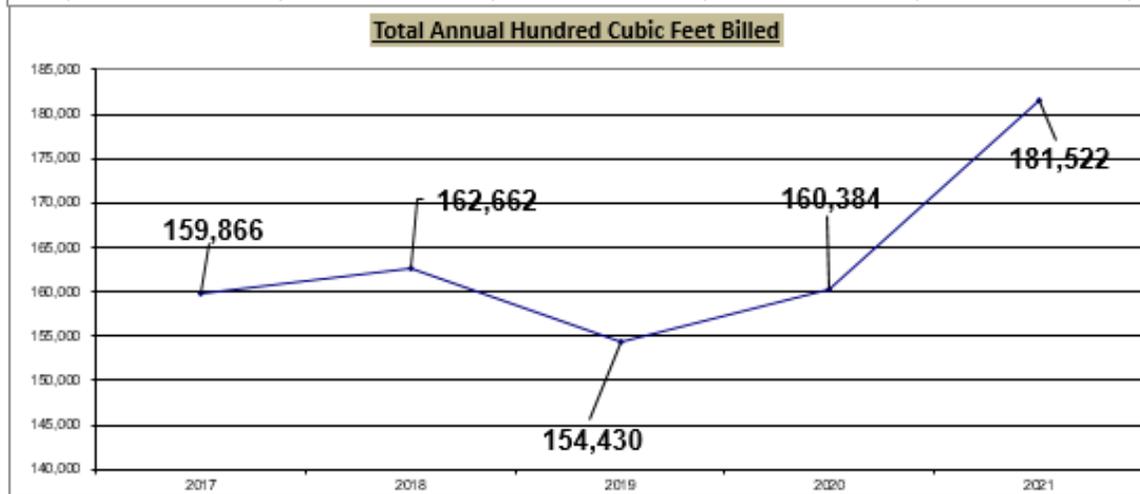
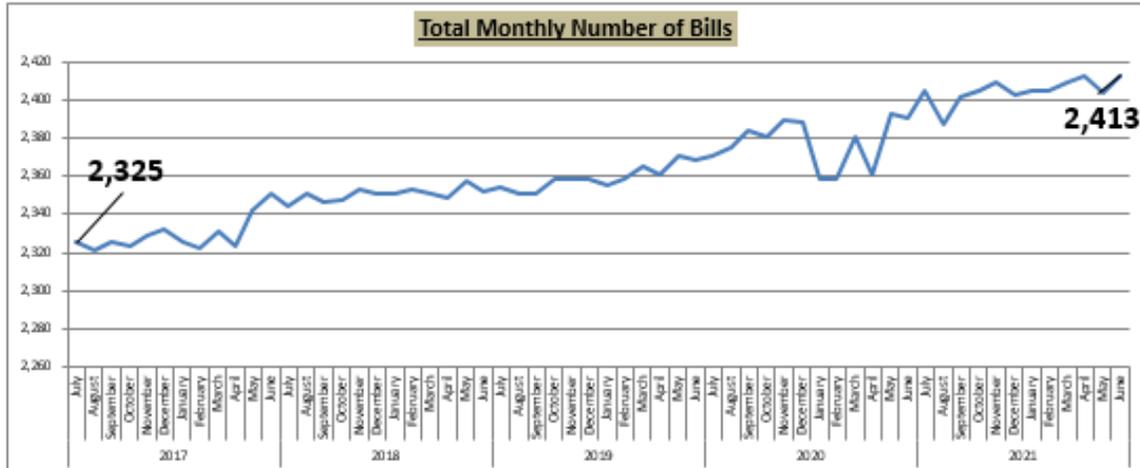
**Capital Expenditures:** (See details in the Capital Expenditure section) Target Balance: \$871,000

	2022 Budget	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
R&R Balance BOY	\$ 525,337	\$ 545,337	\$ 540,337	\$ 645,337	\$ 700,337
Contribution	\$ 145,000	\$ 155,000	\$ 155,000	\$ 155,000	\$ 155,000
Withdrawals	\$ (125,000)	\$ (160,000)	\$ (50,000)	\$ (100,000)	\$ (275,000)
R&R Balance EOY	\$ 545,337	\$ 540,337	\$ 645,337	\$ 700,337	\$ 580,337

### Sewer Billing Statistics

The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District’s water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.

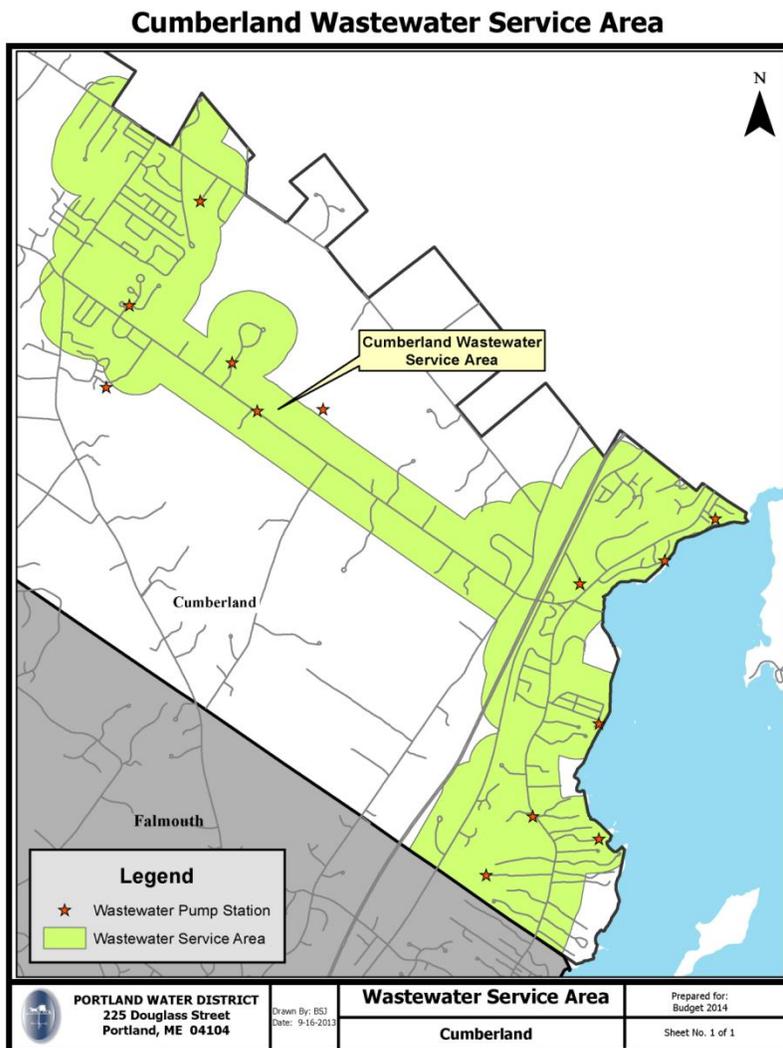
**By Municipal Fiscal Year: Jul 1 to Jun 30**



## Fund: Wastewater - Cumberland

### Background

The Portland Water District's charter authorizes the District to provide wastewater treatment and collection system and interceptors service to the town. By contract with the town, the District additionally operates and maintains the collectors in the sewer collection system. The District contracts with the Town of Falmouth to provide treatment services. Additionally, by contract, the District provides utility billing services.



### **Summary of Services Provided:**

**Treatment**  
0.235 million  
gallons/day

**Collection System:**  
13 Pump Stations with  
31.89 miles of pipe

**Utility Billing Services:**  
Annual Billings of  
\$1,111,041 on 1,236  
Customers  
(avg. 74.91/month)

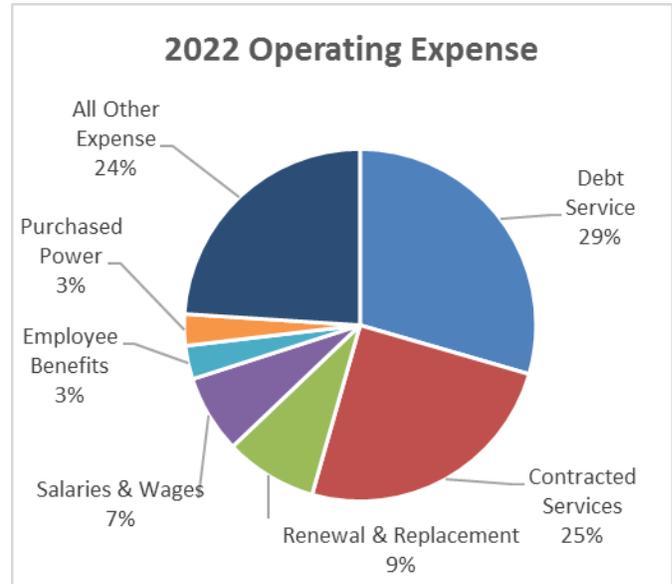
## Fund: Wastewater - Cumberland

### 2022 Financial Summary

The proposed assessment of \$1,005,600 is an increase of \$16,332 or 1.7%.

The proposed 2022 Operating Expense and Capital budgets are \$1,007,809 and \$20,000, respectively. The Operating Expense increase is 1.3% (\$12,540) with increases to Contracted Services and Materials & Supplies and reductions to Debt Service and Wages/Benefits.

Cumberland’s 2022 Capital plan consists of only the usual \$20,000 from renewal and replacement funds for needs related to the wastewater pump stations.



### Assessment Compared to Ratepayers’ Billing

The municipality’s fiscal year end is June 30, while the District’s is December 31. The chart below compares the cash as collected by the District for sewer billings on their behalf and the District’s assessment for services rendered. The municipality may incur additional sewer-related costs. The municipality determines if there are adjustments to sewer billing rates.



Revenue Assumptions:	
-	Consumption is the 12 months ending June 30, 2019
-	Rates Assumed:
Effective Date:	Base/Per HCF
Jul 2013	\$34.25/\$4.96
Sep 2013	\$34.25/\$5.29
Sep 2015	\$35.58/\$5.29
Sep 2016	\$36.92/\$5.29
Sep 2018	\$36.92/\$5.52

## 2022 Operating Expense Highlights

**Salaries/Wages** – This expense is budgeted to decrease 0.9% to \$72,124. The labor hours for this fund decreased 59 hours (2.3%) with the average wage increase driving the change.

**Employee Benefits** – The benefit rate (including FICA) decreased from 50.59% in 2020 to 46.84% in 2022 due to lower pension expenses. Overall, Employee Benefits expense decreased 7.6% (\$2,534).

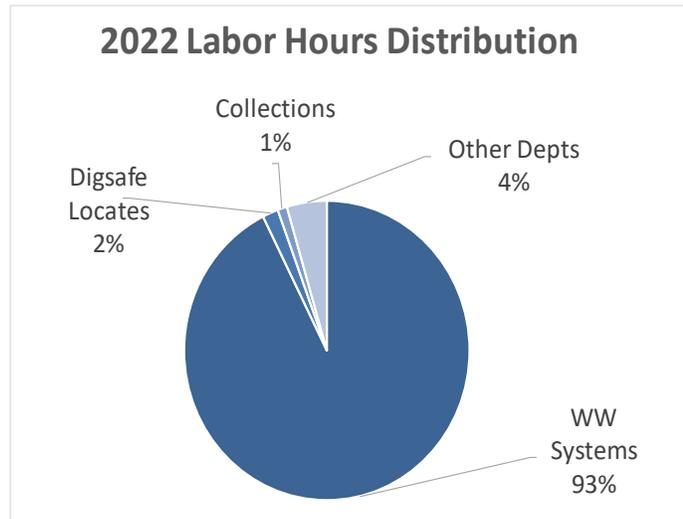
**Contracted Services** – This category includes payments to the Town of Falmouth for wastewater treatment and pumping services. Overall Contracted Services increased 3.9% (\$9,500) to a total of \$251,160. The portion of that amount applicable to the treatment services from the Town of Falmouth is \$205,800.

**Materials & Supplies** – The budget increased \$3,300 to \$15,350. The increase relates to the continued focus on preventive maintenance.

**Support Services** – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer service, billing or computer support) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services increased \$668 or 0.3%. The pool of Support Services costs only increased 1.1% in the 2022 Budget. Higher costs in Engineering Services were mostly offset by lower costs in Administration.

**Debt Service** – Debt service expense decreased 1.0% (\$3,008) due to a decline in interest expense as debt is paid down.

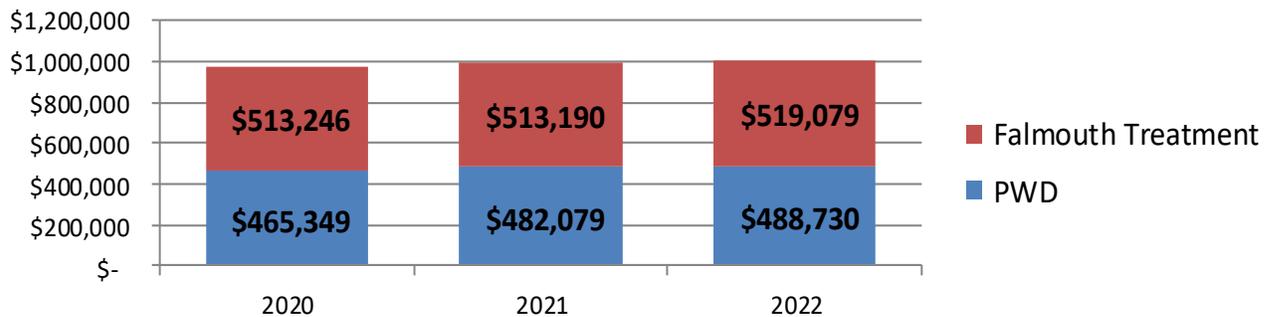
**Renewal and Replacement** – This is the annual contribution to a fund to finance smaller capital projects. A contribution of \$85,600 will be made in 2021, a decrease of \$1,408 from the previous year. This contribution goes towards: Cumberland only assets (\$40,000), Falmouth assets utilized (\$30,000) and Cumberland's share of meters (\$15,600).



	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$965,292	\$494,634	\$989,268	1,005,600	\$16,332	1.7%
Interest Income	\$12,505	\$381	\$6,001	2,209	-\$3,792	-63.2%
Other Income	195	0	0	0	0	n/a
<b>Total Revenue</b>	<b>977,992</b>	<b>495,015</b>	<b>995,269</b>	<b>1,007,809</b>	<b>12,540</b>	<b>1.3%</b>
Salaries & Wages	63,625	39,111	72,811	72,124	-687	-0.9%
Employee Benefits	28,494	18,314	33,548	31,014	-2,534	-7.6%
Contracted Services	244,049	128,201	241,660	251,160	9,500	3.9%
Deferred Cost W/O	5,016	0	0	0	0	n/a
Heat/Fuel Oil	194	64	332	341	9	2.7%
Insurance	3,154	2,844	3,436	3,680	244	7.1%
Materials & Supplies	26,389	4,177	12,050	15,350	3,300	27.4%
Other Expense	50	0	0	0	0	n/a
Purchased Power	27,243	12,022	27,497	29,081	1,584	5.8%
Tele/Other Utilities	2,146	963	2,370	2,391	21	0.9%
Transportation	19,567	9,497	21,335	23,214	1,879	8.8%
SS - Administration	107,756	54,835	117,843	113,132	-4,711	-4.0%
SS - Engineering Services	23,364	11,956	37,893	43,625	5,732	15.1%
SS - Wastewater Services	38,743	19,228	38,669	38,224	-445	-1.2%
SS - Water Services	915	409	1,668	1,760	92	5.5%
<b>Operating Expense</b>	<b>590,705</b>	<b>301,621</b>	<b>611,112</b>	<b>625,096</b>	<b>13,984</b>	<b>2.3%</b>
Debt Service & Lease Expense	303,747	149,907	300,121	297,113	-3,008	-1.0%
Renewal & Replacement - Direct	40,000	20,000	40,000	40,000	0	0.0%
Renewal & Replace - Indirect	15,681	7,020	14,036	15,600	1,564	11.1%
<b>Renewal &amp; Replacement - Contract</b>	<b>30,000</b>	<b>15,000</b>	<b>30,000</b>	<b>30,000</b>	<b>0</b>	<b>0.0%</b>
<b>Total Expense</b>	<b>980,133</b>	<b>493,548</b>	<b>995,269</b>	<b>1,007,809</b>	<b>12,540</b>	<b>1.3%</b>
Current Year Surplus (Deficit)	-2,141	1,467	0	0		
Transfer to R&R	0	0	0	0		
Prior Year Surplus	227,678	225,537	259,019	223,633		
Accumulated Surplus	225,537	227,004	259,019	223,633		

### Contracted Services – Treatment Services from Town of Falmouth

A significant portion of Cumberland’s total expense involves the treatment services provided by the Town of Falmouth:



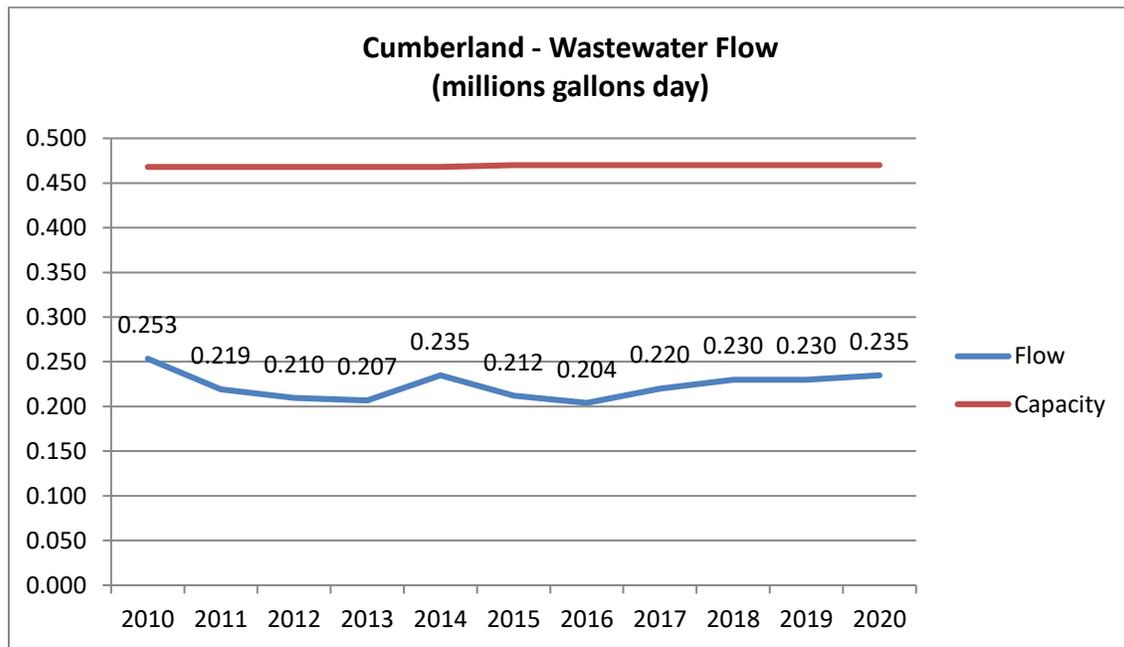
## Operation Summary

**Wastewater Treatment:** The wastewater generated in the Town of Cumberland is collected and pumped to the Falmouth Wastewater Treatment Facility (FWWTF). PWD, on behalf of Cumberland, owns 30% of the Falmouth Plant’s design capacity, or 468,000 gallons per day. The town is billed for operating costs based on the ratio of Cumberland flow to the total flow processed at the Falmouth facility. The table below illustrates Cumberland’s flow contribution to the Falmouth plant.

Year	Cumberland Flow	Falmouth WWTF Flow	% Cumberland Flow
2020	0.235 mgd	0.932 mgd	25%

FWWTF Capacity	Cumberland Cap (30%)	% Capacity Used	Capacity Remaining
1.56 mgd	0.468 mgd	50%	0.23 mgd

The flows from the Cumberland system for the past several years have essentially been constant, with Cumberland using just less than half of the allotted capacity in the Falmouth Plant.



**Wastewater Conveyance** – collectors, interceptors and pumping stations

Parameter	2021 Actual to Sept	2022 Projected
Preventive Work Orders	285	200
Corrective Work Orders	19	15
Wet wells cleaned	20	40
Debris removed (tons)	22.6	40
Dry Weather Overflows	1	0

## Operation Summary (continued)

### 2021 Other Highlights

- As part of a paving projects off of Route 88, 85 manholes were evaluated. 25 were in need of repair work. To meet project deadlines, a contractor raised and repaired 10 immediately. The remaining manholes will be evaluated. PWD crews raised the remaining manholes as part of the project. Crews will continue to inspect manholes routinely in the future.
- All pump stations are continuously monitored with our SCADA system and dispatch service. Operations staff visit each station on a weekly basis.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis unless experience dictates otherwise.

### 2022 Work Plan

- The new software and our Asset Management Program will continue to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis unless experience dictates otherwise.

## Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects. Detailed descriptions of the projects can be found in the Capital Finance and Capital Expenditures sections.

### Expenditures by CIP Year:

#### 2022 CIP

Projects:

#### **WW Collection & Pumping**

Pump Station R&R - 3136

\$ 20,000

Total by CIP Year

\$ 20,000

### Source of Funds:

	<u>Regular</u>	<u>Contracted</u>
	<u>R&amp;R Fund</u>	<u>R&amp;R Fund</u>
Beginning Balance	\$ 141,919	\$ 25,884
2022 Contribution	\$ 40,000	\$ 30,000
Total R&R Balance Available	\$ 181,919	\$ 55,884
Projects:		
<b>WW Collection &amp; Pumping</b>		
Pump Station R&R - 3136	\$ 20,000	\$ -
<b>WW Treatment</b>		
Town of Falmouth - estimated expenses	\$ -	\$ 88,000
Total	\$ 20,000	\$ 88,000
Ending Balance	\$ 161,919	\$ (32,116)

## Projections for Rate-Making Purposes

Multi-year projections are made for each of the wastewater funds' assessment. The projections provide guidance to the wastewater municipalities to assist them in determining their wastewater sewer rates. A summary of the projection is provided on the next page.

### Major Assumptions:

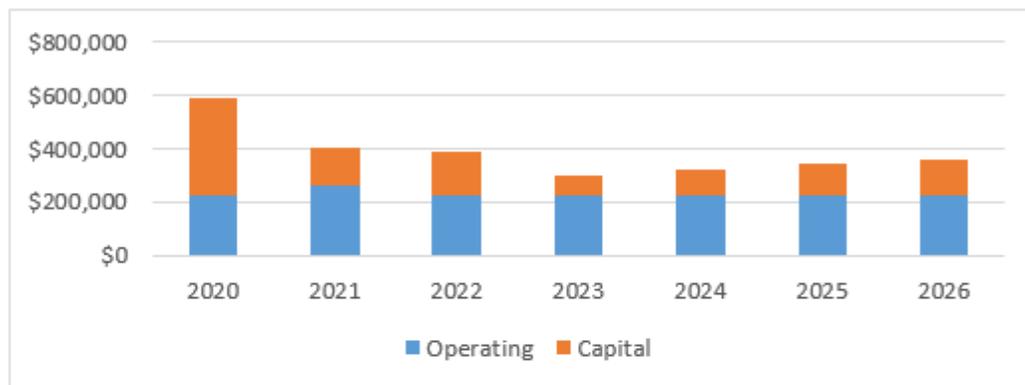
The assumptions incorporated in the projections are as follows:

- Salary increases of 3.0% in 2023 and 2% in other years. No change in number of employees.
- Benefit increases of 10% in 2023 (health insurance increase) and 5% in other years.
- Other expenses increase between 2% and 5% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2022 5-year capital plan. New debt assumed a 20-year life between 1% and 3.5% interest depending on funding source and year of financing. The new debt includes financing the upgrade of 8 pump stations.

### Summary of Projection Impact:

Assessment is projected to increase to \$1,033,802 in 2026, a 15% increase over 2022 Budget, with the most significant cost change related to debt service issued to finance capital projects. Debt Percent of Budget is better than target and the Debt Service Ratio is higher than target but is declining over the coming years. Operating Reserve balance and Capital R&R balance are below the target balances.

### Reserve Fund Balances



### Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

2018	2019	2020	2021	2022	2023	2024	2025	2026
33%	34%	31%	30%	29%	30%	30%	34%	33%

### Debt Service Ratio – Target: Greater or Equal to 125%

2018	2019	2020	2021	2022	2023	2024	2025	2026
103%	119%	128%	128%	129%	128%	127%	122%	123%

## Projections for Rate-Making Purposes (continued)

### Operating Fund:

	2020 Actual	2021 Budget	2022 Budget	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
<b>Revenues:</b>							
Assessment Income	965,292	989,268	1,005,600	1,040,709	1,066,192	1,147,696	1,156,993
Interest Income	12,700	6,001	2,209	2,209	2,430	2,673	2,673
<b>Total Revenues</b>	<b>977,992</b>	<b>995,269</b>	<b>1,007,809</b>	<b>1,042,918</b>	<b>1,068,622</b>	<b>1,150,369</b>	<b>1,159,666</b>
<b>Operating Expenses:</b>							
Salaries & Wages	63,625	72,811	72,124	74,288	75,774	77,289	78,835
Employee Benefits	28,494	33,548	31,014	34,115	35,821	37,612	39,493
Contracted Services	244,049	241,660	251,160	258,695	263,869	269,146	274,529
Deferred Cost W/O	5,016	0	0	0	0	0	0
Heat/Fuel Oil	194	332	341	351	358	365	372
Insurance	3,154	3,436	3,680	3,790	3,866	3,943	4,022
Materials & Supplies	26,389	12,050	15,350	15,811	16,127	16,450	16,779
Other Expense	50	0	0	0	0	0	0
Purchased Power	27,243	27,497	29,081	29,081	29,081	29,081	29,081
Tele/Other Utilities	2,146	2,370	2,391	2,463	2,512	2,562	2,613
Transportation	19,567	21,335	23,214	23,910	24,388	24,876	25,374
SS - Administration	107,756	117,843	113,132	118,506	121,765	125,114	128,555
SS - Engineering Services	23,364	37,893	43,625	45,697	46,954	48,245	49,572
SS - Wastewater Services	38,743	38,669	38,224	40,040	41,141	42,272	43,434
SS - Water Services	915	1,668	1,760	1,844	1,895	1,947	2,001
	590,705	611,112	625,096	648,591	663,551	678,902	694,660
<b>Debt Service</b>							
Renewal & Replacement - Direct	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Renewal & Replace - Indirect	45,681	44,036	45,600	45,600	45,600	45,600	45,600
Capital Finance Expense	389,428	384,157	382,713	394,327	405,071	471,467	465,006
<b>Total Operating Expenses</b>	<b>980,133</b>	<b>995,269</b>	<b>1,007,809</b>	<b>1,042,918</b>	<b>1,068,622</b>	<b>1,150,369</b>	<b>1,159,666</b>
Current Year Surplus(Deficit)	-2,141	0	0	0	0	0	0
Prior Year Surplus	227,678	259,019	223,633	223,633	223,633	223,633	223,633
Accumulated Surplus	225,537	259,019	223,633	223,633	223,633	223,633	223,633
Target Balance(25% of budget)	245,033	248,817	251,952	260,730	267,156	287,592	289,917
Above/(Below)	-19,496	10,202	-28,319	-37,097	-43,523	-63,959	-66,284

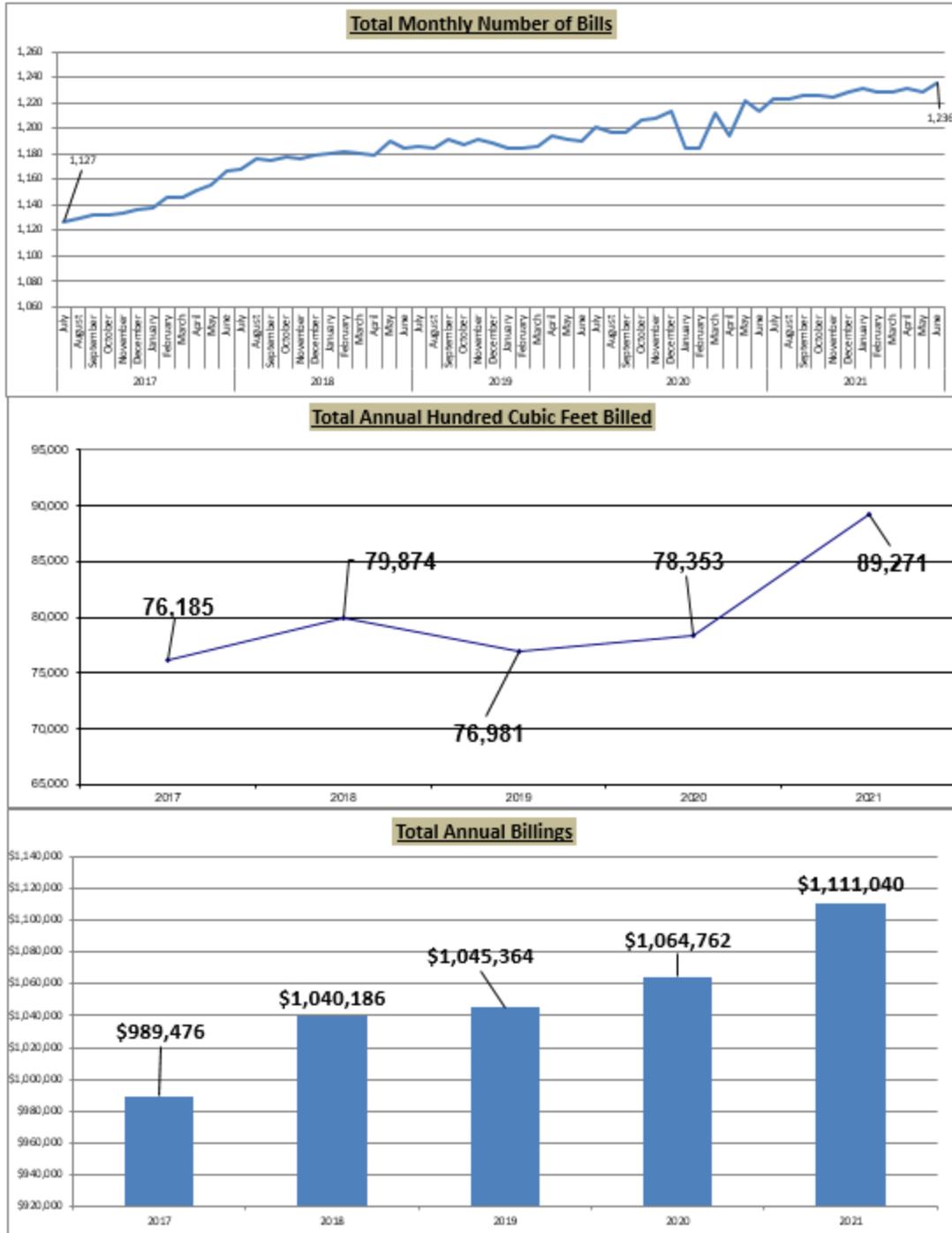
### Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$465,000

	2022 Budget	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
R&R Balance BOY	\$ 141,919	\$ 161,919	\$ 76,919	\$ 96,919	\$ 116,919
Contribution	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000
Withdrawals	\$ (20,000)	\$ (125,000)	\$ (20,000)	\$ (20,000)	\$ (20,000)
R&R Balance EOY	\$ 161,919	\$ 76,919	\$ 96,919	\$ 116,919	\$ 136,919

### Sewer Billing Statistics

The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District’s water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.

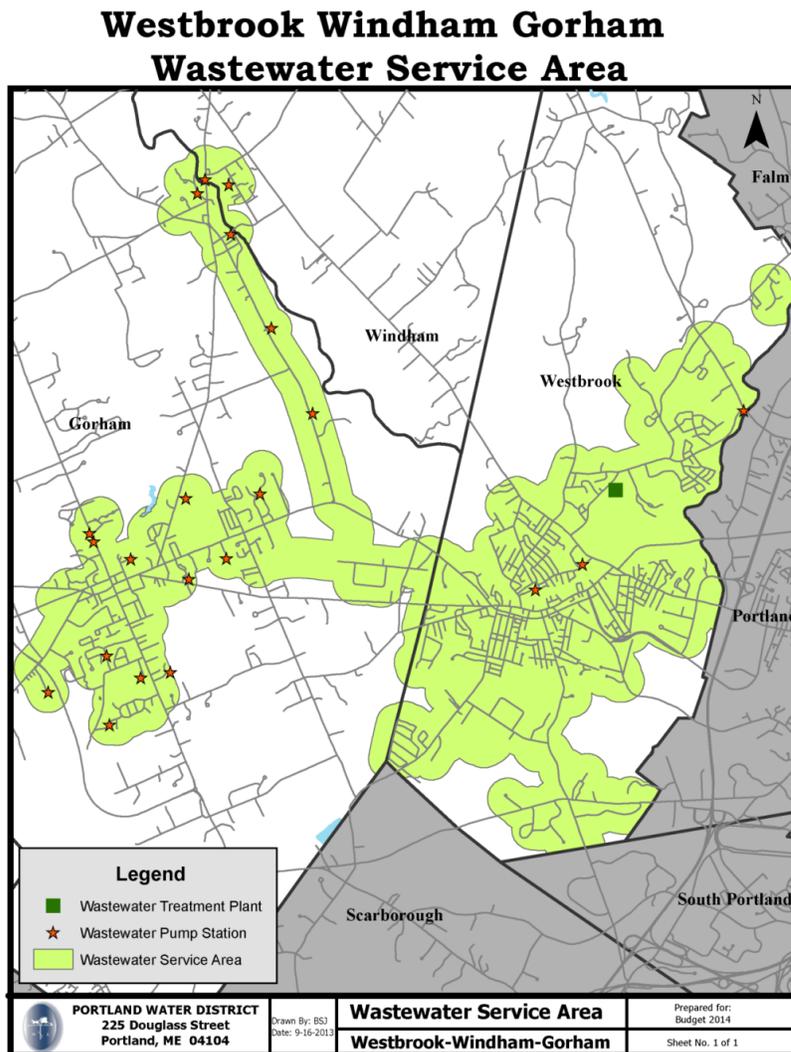
**By Municipal Fiscal Year: Jul 1 to Jun 30**



## Fund: Wastewater - Gorham

### Background

The Portland Water District's charter authorizes the District to provide wastewater treatment and collection system-interceptors service to the town. By contract with the town, the District additionally operates and maintains the collectors in the sewer collection system. Gorham's wastewater is treated at the treatment facility located in Westbrook and jointly used by the Town of Windham and City of Westbrook. Additionally, by contract, the District provides utility billing services.



### Summary of Services Provided:

**Treatment**  
0.41 million  
gallons/day

**Collection System**  
14 Gorham only & 3  
Joint use Pump  
Stations with 33.7  
miles of pipe

**Utility Billing**  
Annual Billings of  
\$1,263,715 for 1,920  
Customers (avg.  
\$54.85/month)

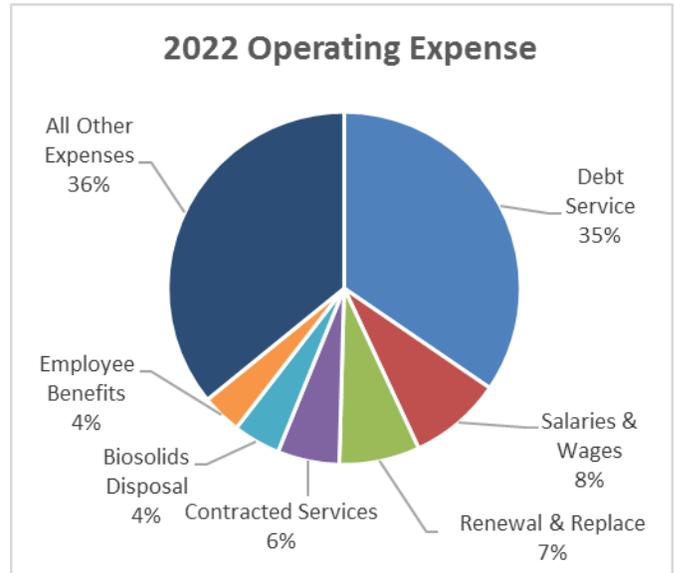
## Fund: Wastewater - Gorham

### 2022 Financial Summary

The proposed assessment is \$1,313,100; this is a 10.5% increase over the prior year and is less than the forecasted assessment provided to the town last year.

The proposed 2022 Operating Expense and Capital budgets are \$1,313,252 and \$66,200, respectively.

The Operating Expense budget increase is \$117,415 or 9.8%. Much of the Fund’s expense comes from joint use facilities with Westbrook and Windham. Gorham’s percentage of the wastewater flows increased in Westbrook Joint from 13.0% to 13.5% and in Little Falls Joint from 22.5% to 27.0%. The 2022 Capital budget includes a locker room renovation at the Westbrook Regional treatment facility. Gorham’s portion of this is \$30,800.



### Assessment Compared to Ratepayers’ Billing

The municipality’s fiscal year end is June 30, while the District’s is December 31. The chart below compares the cash as collected by the District for sewer billings on their behalf and the District’s assessment for services rendered. The municipality may incur additional sewer-related costs. The municipality determines whether to increase the sewer billing rates.



#### Revenue Assumptions:

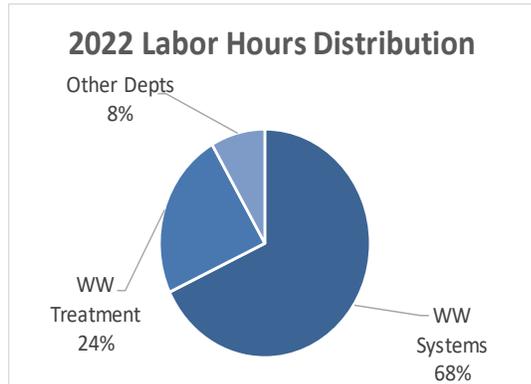
- Consumption is the 12 months ending June 30, 2021

#### Rates Assumed:

Effective Date:	Base/Per HCF
Nov 2006	\$13.74/6.29
Apr 2021	\$14.39/\$6.64
Apr 2022	\$15.04/\$6.99
Apr 2023	\$15.69/\$7.34
Apr 2024	\$16.19/\$7.84

## 2022 Operating Expense Highlights

**Salaries/Wages** – The budget for salaries and wages is related to the labor required to deliver wastewater services. Treatment plant costs are allocated based on flows. The budget increased \$5,762 (5.4%) to \$112,210. The average wage rate increased 2.0% and labor hours increased 112 hours (2.9%).



**Employee Benefits** – The benefit rate (including FICA) decreased from 50.59% in 2020 to 46.84% in 2022 due to lower pension expenses. Overall, Employee Benefits expense decreased 2.6% (\$1,287).

**Biosolids Disposal** – Biosolids expense at the Westbrook/Gorham/Windham Regional WWTF is projected to increase 11.3% due to an estimated increase in the disposal cost of 11.1% (from \$90 to \$100.00/wet ton) and a 0.2% estimated increase in volume. The higher unit costs relates to continued regulator and public concern with per- and poly-fluoroalkyl substances (PFAS) with the impact of limiting the available outlets to dispose of biosolids. Biosolids expense for Gorham is projected to increase \$7,734 (15.6%). Gorham's share of allocated treatment costs increased 0.5% to 13.5%.

**Chemicals** – Chemical expense regional treatment plant rose 49.4% due primarily to higher usage for Polymer (60.1%), Sodium Hypochlorite (50.7%) and Sodium Bisulfite (32.5%). Gorham's expense increased 49.6% or \$8,673.

**Contracted Services** – Overall, the expense was up \$14,839 (24.7%). Most of the increase is related to the cost of raising manhole covers for local paving projects.

**Regulatory/Taxes** – The State of Maine has imposed a \$10.00/wet ton of biosolids regulatory fee to deal with statewide issues regarding PFAS. The impact to this fund is \$5,721 in the 2022 Budget.

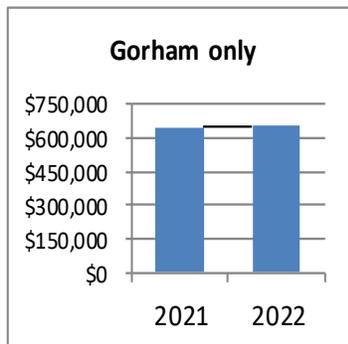
**Purchased Power** – Purchased Power increased by \$5,603 (12.1%). Budgeted demand usage increased 3.4% and 6.4% for the Westbrook Regional WWTF and Cottage Place WWPS, respectively. On August 1, 2021 there was a substantial increase to transmission rates, regulated by the Federal Energy Regulatory Commission (FERC). Energy rates for small and medium accounts were reduced by 6%.

**Support Services** – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer billing or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services increased \$5,001 or 1.6%. The pool of Support Services costs only increased 1.1% in the 2022 Budget. Higher costs in Engineering Services and Wastewater were mostly offset by lower costs in Administration and Environmental Services.

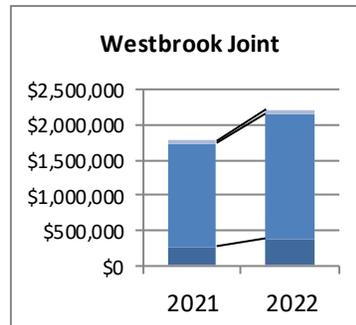
**Debt Service** - The annual principal and interest payments on bonds issued to finance capital projects. This item increased 21.1% (\$79,216) due to the proposed issuance of new debt for projects at the Westbrook Regional Wastewater Treatment Facility relating to aeration and sludge odor control.

**Renewal & Replacement** - Dollars put aside to fund smaller capital projects. A contribution of \$97,310 will be made in 2022.

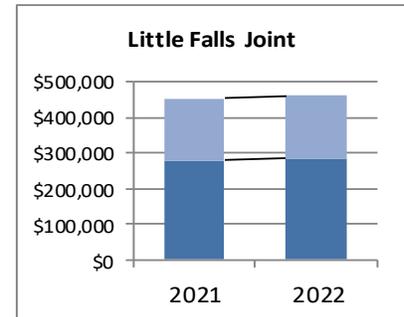
	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$1,160,676	\$594,420	\$1,188,840	\$1,313,100	\$124,260	10.5%
Interest Income	25,366	674	11,997	4,202	-7,795	-65.0%
Other Income	<u>1,312</u>	<u>289</u>	<u>0</u>	<u>950</u>	<u>950</u>	n/a
Total Revenue	1,187,354	595,383	1,200,837	1,318,252	117,415	9.8%
Salaries & Wages	88,593	54,030	106,448	112,210	5,762	5.4%
Employee Benefits	39,586	26,367	49,612	48,325	-1,287	-2.6%
Biosolids Disposal	41,877	26,128	49,479	57,213	7,734	15.6%
Chemicals	25,031	12,648	17,484	26,157	8,673	49.6%
Contracted Services	69,885	92,911	60,030	74,869	14,839	24.7%
Deferred Cost W/O	8,622	0	0	0	0	n/a
Heat/Fuel Oil	6,679	3,676	5,550	7,589	2,039	36.7%
Insurance	1,437	915	1,417	2,091	674	47.6%
Materials & Supplies	25,736	16,594	25,420	28,579	3,159	12.4%
Other Expense	853	44	1,019	1,010	-9	-0.9%
Purchased Power	46,874	23,406	46,357	51,960	5,603	12.1%
Regulatory/Taxes	561	826	585	6,329	5,744	981.9%
Tele/Other Utilities	3,295	1,248	3,172	4,012	840	26.5%
Transportation	16,816	11,720	23,389	25,662	2,273	9.7%
SS - Administration	131,798	68,418	147,850	144,577	-3,273	-2.2%
SS - Engineering Services	40,423	22,554	71,774	79,205	7,431	10.4%
SS - Environmental Services	28,035	12,805	24,641	23,192	-1,449	-5.9%
SS - Wastewater Services	59,211	34,119	67,523	69,698	2,175	3.2%
SS - Water Services	<u>1,470</u>	<u>657</u>	<u>2,678</u>	<u>2,795</u>	<u>117</u>	<u>4.4%</u>
Operating Expense	636,782	409,066	704,428	765,473	61,045	8.7%
Debt Service & Lease Expense	373,600	179,418	376,253	455,469	79,216	21.1%
Renewal & Replacement - Direct	90,800	50,000	100,000	75,000	-25,000	-25.0%
Renewal & Replace - Indirect	<u>22,579</u>	<u>10,080</u>	<u>20,156</u>	<u>22,310</u>	<u>2,154</u>	<u>10.7%</u>
Total Expense	1,123,761	648,564	1,200,837	1,318,252	117,415	9.8%
Current Year Surplus (Deficit)	63,593	-53,181	0	0		
Transfer to Renewal/Replacement	-58,167	0	0	0		
Prior Year Surplus	<u>294,783</u>	<u>300,209</u>	<u>339,048</u>	<u>256,767</u>		
Accumulated Surplus	300,209	247,028	339,048	256,767		



**Gorham Only** – Up 0.3% or \$1.7k to \$652k.



**Westbrook JT** – Expense up 24.5%; Gorham's share of expense up 0.5% to 13.5%, expense up \$110.5k (41.2%).



**Little Falls JT** – Expense up 1.8%, Gorham's share of expense was up 5.0% to 27.5%, Gorham expense was up \$5.2k (1.9%).

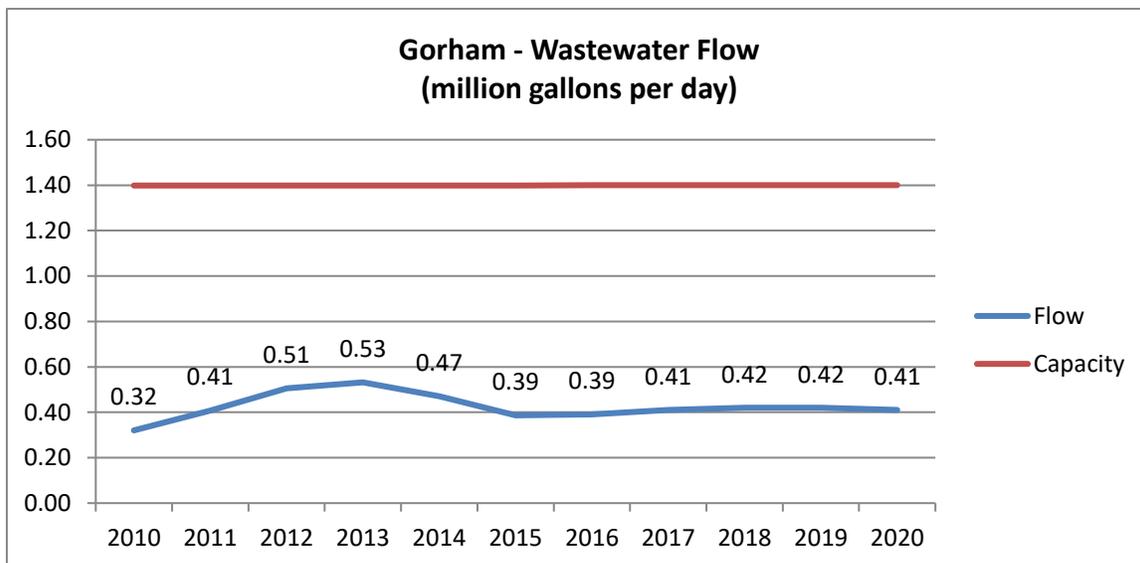
## Operation Summary

**Wastewater Treatment:** All wastewater generated in Gorham is being treated at the Westbrook/ Gorham/Windham Regional WWTF. The table below shows flow from the Gorham and Little Falls section of Gorham to the regional facility. The Town of Gorham shares operational costs at the treatment facility in Westbrook based on the amount of flow the town contributes to the total flow through the treatment facility. Gorham has 30.8% of the treatment facility capacity, or 1,398,320 gallons per day.

Area	2020 Gorham Flow	Westbrook WWTF Flow	% Gorham Flow
Total Gorham Flow	0.41 mgd	3.04 mgd	13.5%

WGWWTF Capacity	Gorham Capacity (30.8%)	2020 - % Capacity Used	Capacity Remaining
4.54 mgd	1.398 mgd	29%	0.99 mgd

Flow from Gorham remained steady when compared to the past several years. The Town of Gorham utilized 30% of the allotted capacity at the treatment plant and has just under 1 million gallons per day of capacity remaining at the treatment plant.



**Wastewater Conveyance** – interceptors and pumping stations

Parameter	2021 Actual to Sept	2022 Projected
Preventive Work Orders	256	190
Corrective Work Orders	8	20
Wet wells cleaned	18	30
Debris removed (tons)	24.4	35
Dry Weather Overflows	0	0

## Operation Summary (continued)

### 2021 Other Highlights

- The Asset Management Program continued to direct the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations.
- The aeration system at the Westbrook/Gorham/Windham Regional WWTF was evaluated in 2015. Several possible approaches to design of the new system were identified and are dependent on future phosphorus permit limits. The loadings to the treatment facility have increased and are creating some operational challenges and additional costs. Construction of the project is underway and will continue for the new couple of years.
- The dewatering polymer system was upgraded and odor control units are being installed in the solids handling areas of the process building to reduce plant odors.
- Recognizing the increased loading at the treatment plant and in anticipation of the aeration system upgrade in 2020, acceptance of septage at the plant has ceased until after the completion of the aeration upgrade. Septage is accepted at the East End WWTF in Portland.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis.
- The odor control system at the Mallison Falls Pump Station has worked well since it was installed in the summer of 2012. We have received no odor complaints since its installation. We continue to maintain the system and replace the odor removing media on an annual basis.
- The new dewatering system (screw press) at the treatment facility was installed in 2018. Following an extended start-up, the Operations Team has been able to optimize the equipment and performance of the system has increased dramatically. This resulted in decreased costs related to the management of biosolids produced at the treatment plant.

### 2022 Work Plan

- The new software and Asset Management Program will continue to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis.
- The Gorham radio network enabling SCADA communication (control system) will be upgraded to replace the legacy system.
- Construction of the aeration system at the treatment plant will continue and the plant team will be working to operate the facility through the project.
- A modernization of the treatment plant's locker rooms will be completed to better meet the needs of our changing workforce.
- An assessment of long-term biosolids management options will be completed in response to contaminants of emerging concern, like PFAS, and instability in the solid waste management systems in Maine have created significant instability. This assessment will help determine future approaches to manage biosolids.

## Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects. Detailed descriptions of the projects can be found in the Capital Finance and Capital Expenditures sections.

### Expenditures by CIP Year:

	<u>Prior CIP</u>	<u>2022 CIP</u>	<u>Total</u>
Projects:			
<b>WW Collection &amp; Pumping</b>			
Gorham Only Pump Station R&R - 3137		\$ 20,000	\$ 20,000
<b>WW Treatment</b>			
<u>Westbrook Treatment Plant</u>			
Aeration & Clarifier Construction - 3023 (prorated)	\$ 2,464,000		\$ 2,464,000
Treatment Plant R&R - 3132 (prorated)		\$ 15,400	\$ 15,400
Locker Room Renovation - 3247 (prorated)		\$ 30,800	\$ 30,800
Total by CIP Year	\$ 2,464,000	\$ 66,200	\$ <b>2,530,200</b>

### Source of Funds:

	<u>R&amp;R Fund</u>	<u>Bond Issue 2022</u>	<u>Bond Issue &gt; 2022</u>	<u>Funding Total</u>
Beginning Balance	\$ 824,908			
2022 Contribution	\$ 75,000			
Total R&R Balance Available	\$ 899,908			
Projects:				
<b>WW Collection &amp; Pumping</b>	\$ 20,000			\$ 20,000
<b>WW Treatment</b>	\$ 46,200	\$ 1,232,000	\$ 1,232,000	\$ 2,510,200
Total	\$ 66,200	\$ 1,232,000	\$ 1,232,000	\$ <b>2,530,200</b>
Ending Balance	\$ 833,708			

**Prorated Projects:** Costs of projects done on infrastructure used by multiple communities are 'prorated' between the municipalities based on relative design capacity.

### Projections for Rate-Making Purposes

Multi-year projections are made for each of the wastewater funds’ assessment. The projections provide guidance to the wastewater municipalities to assist them in determining their wastewater sewer rates. A summary of the projection is provided on next page.

#### Major Assumptions:

The assumptions incorporated in the projections are as follows:

- Salary increases of 3.0% in 2023 and 2% in other years. No change in number of employees.
- Benefit increases of 10% in 2023 (health insurance increase) and 5% in other years.
- Other expenses increase between 2% and 5% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2022 5-year capital plan. New debt assumed a 20-year life between 1% and 3.5% interest depending on funding source and year of financing. Significant new projects includes Gorham’s share of the \$12M aeration system upgrade at the treatment plant and 4 pump stations upgrades.

#### Summary of Projection Impact:

Assessment is projected to increase to \$1,577,758 in 2026, a 20% increase over 2022 Budget, with the most significant cost change related to debt service issued to finance capital projects. Debt ratios are worse than targets because of the substantial treatment plant upgrade.

#### Reserve Fund Balances



#### Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

2018	2019	2020	2021	2022	2023	2024	2025	2026
21%	20%	19%	20%	18%	18%	20%	21%	25%

#### Debt Service Ratio – Target: Greater or Equal to 125%

2018	2019	2020	2021	2022	2023	2024	2025	2026
150%	136%	153%	133%	147%	146%	139%	137%	125%

## Projections for Rate-Making Purposes (continued)

### Operating Fund:

	2020 Actual	2021 Budget	2022 Budget	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
<b>Revenues:</b>							
Assessment Income	1,160,676	1,188,840	1,313,100	1,438,347	1,532,428	1,546,059	1,577,758
Interest Income	25,366	11,997	4,202	4,202	4,622	5,084	5,084
Other Income	1,312	0	950	950	950	950	950
<b>Total Revenues</b>	<b>1,187,354</b>	<b>1,200,837</b>	<b>1,318,252</b>	<b>1,443,499</b>	<b>1,538,000</b>	<b>1,552,093</b>	<b>1,583,792</b>
<b>Operating Expenses:</b>							
Salaries & Wages	88,593	106,448	112,210	115,576	117,888	120,246	122,651
Employee Benefits	39,586	49,612	48,325	53,158	55,816	58,607	61,537
Biosolids Disposal	41,877	49,479	57,213	58,586	59,523	60,475	61,443
Chemicals	25,031	17,484	26,157	26,942	27,481	28,031	28,592
Contracted Services	69,885	60,030	74,869	77,115	78,657	80,230	81,835
Deferred Cost W/O	8,622	0	0	0	0	0	0
Heat/Fuel Oil	6,679	5,550	7,589	7,817	7,973	8,132	8,295
Insurance	1,437	1,417	2,091	2,154	2,197	2,241	2,286
Materials & Supplies	25,736	25,420	28,579	29,436	30,025	30,626	31,239
Other Expense	853	1,604	1,010	1,040	1,061	1,082	1,104
Purchased Power	46,874	46,357	51,960	51,960	51,960	51,960	51,960
Regulatory/Taxes	561	0	6,329	6,519	6,649	6,782	6,918
Tele/Other Utilities	3,295	3,172	4,012	4,132	4,215	4,299	4,385
Transportation	16,816	23,389	25,662	26,432	26,961	27,500	28,050
SS - Administration	131,798	147,850	144,577	151,444	155,609	159,888	164,285
SS - Engineering Services	40,423	71,774	79,205	82,967	85,249	87,593	90,002
SS - Environmental Services	28,035	24,641	23,192	24,294	24,962	25,648	26,353
SS - Wastewater Services	59,211	67,523	69,698	67,009	68,852	70,745	72,690
SS - Water Services	1,470	2,678	2,795	2,928	3,009	3,092	3,177
	636,782	704,428	765,473	789,509	808,087	827,177	846,802
Debt Service	373,600	376,253	455,469	530,413	606,336	601,339	613,413
Renewal & Replacement - Direct	90,800	100,000	75,000	100,000	100,000	100,000	100,000
Renewal & Replace - Indirect	22,579	20,156	22,310	23,577	23,577	23,577	23,577
Capital Finance Expense	486,979	496,409	552,779	653,990	729,913	724,916	736,990
<b>Total Operating Expenses</b>	<b>1,123,761</b>	<b>1,200,837</b>	<b>1,318,252</b>	<b>1,443,499</b>	<b>1,538,000</b>	<b>1,552,093</b>	<b>1,583,792</b>
Current Year Surplus(Deficit)	63,593	0	0	0	0	0	0
Transfer to Capital Reserve	-58,167						
Prior Year Surplus	294,783	339,048	256,767	256,767	256,767	256,767	256,767
Accumulated Surplus	300,209	339,048	256,767	256,767	256,767	256,767	256,767
Target Balance(25% of budget)	280,940	300,209	329,563	360,875	384,500	388,023	395,948
Above/(Below)	19,269	38,839	-72,796	-104,108	-127,733	-131,256	-139,181

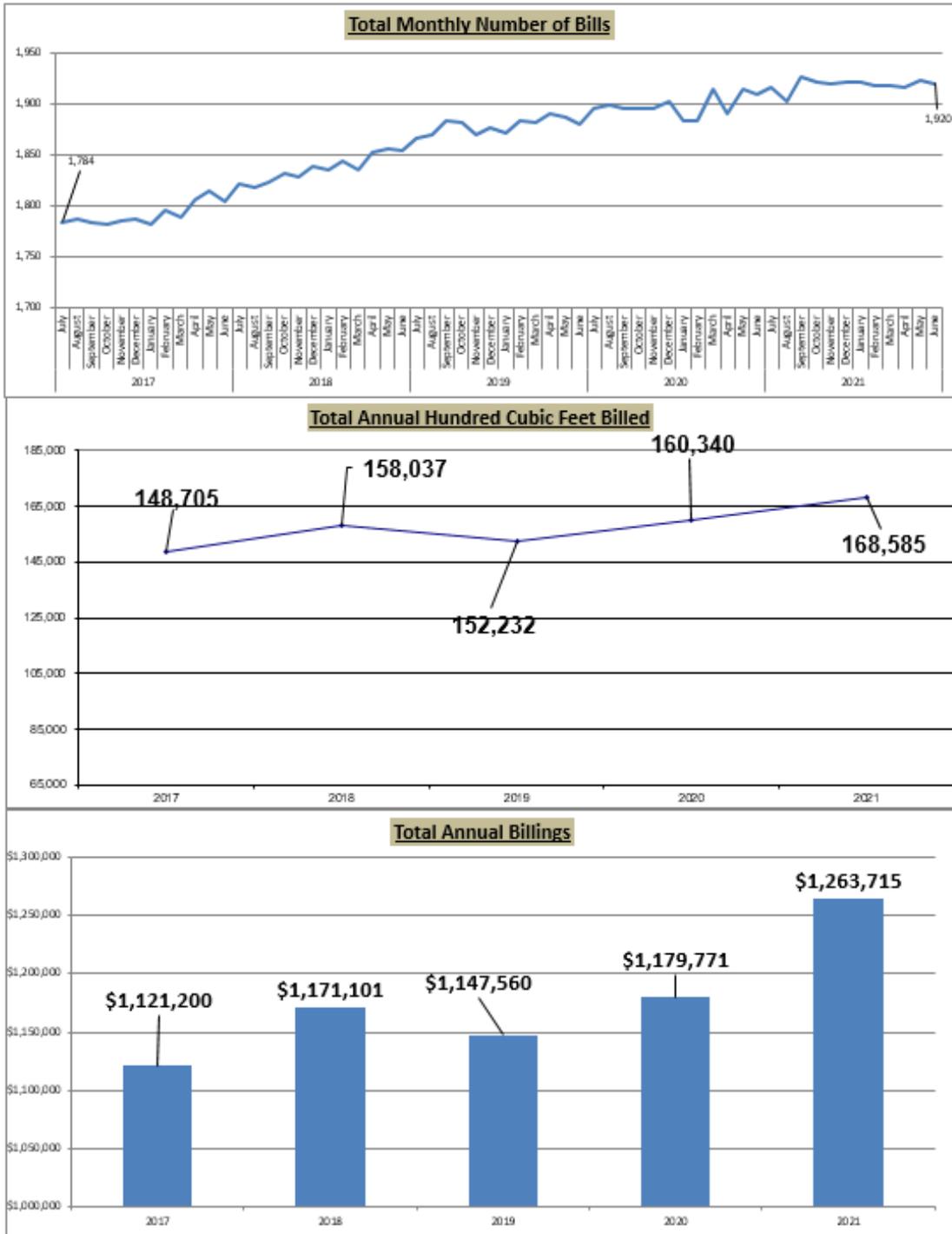
### Capital Expenditures: (See details in the Capital Expenditure section) Target Balance: \$910,000

	2022 Budget	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
R&R Balance BOY	\$ 824,908	\$ 833,708	\$ 868,688	\$ 635,088	\$ 636,188
Contribution	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 75,000
Withdrawals	\$ (66,200)	\$ (40,020)	\$ (308,600)	\$ (73,900)	\$ (58,500)
R&R Balance EOY	\$ 833,708	\$ 868,688	\$ 635,088	\$ 636,188	\$ 652,688

### Sewer Billing Statistics

The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District’s water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.

**By Municipal Fiscal Year: Jul 1 to Jun 30**

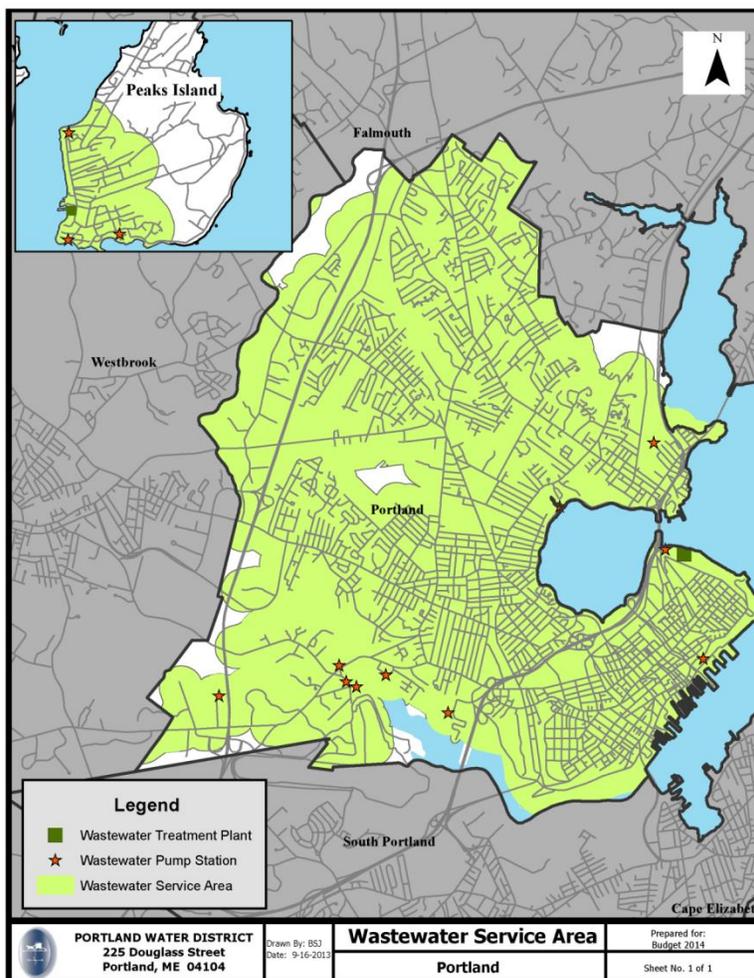


## Fund: Wastewater - Portland

### Background

The Portland Water District's charter authorizes the District to provide wastewater treatment, collection system and interception services to the city. By contract with the city, the District additionally provides Peaks Island's collection system-collector and storm water system services. The city maintains the mainland's collection system-collectors that transport wastewater from user's property to the District's interceptors. Additionally, by contract, the District provides utility billing services.

### Portland Wastewater Service Area



#### Summary of Services

##### Provided:

##### Treatment

Mainland: 15.2 million gallons/day

Peaks Island: 0.101 million gallons/day

##### Collection System

14 Pump Stations with  
23.5 miles of pipe

##### Storm Water system

Peaks Island with 1.9 miles of pipe

##### Utility Billing

Annual Billings of  
\$25,525,411 on 17,205  
Customers (avg.  
\$123.63/month)

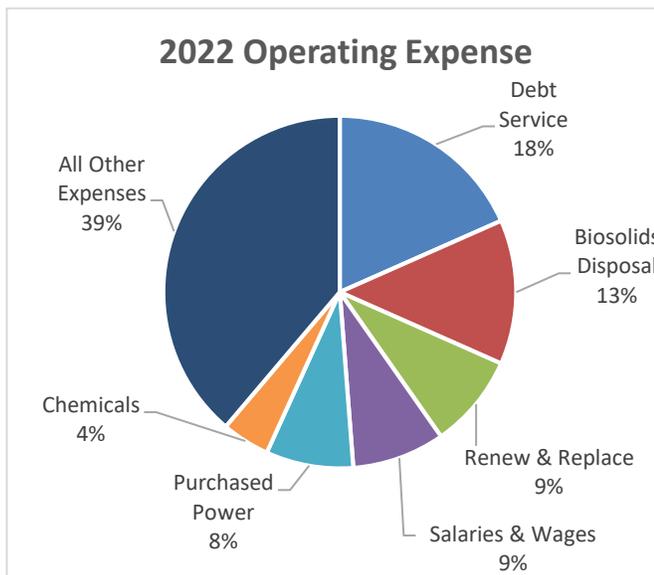
## Fund: Wastewater - Portland

### 2022 Financial Summary

The city’s assessment will increase 3.9% or \$518,292 to \$13,960,236.

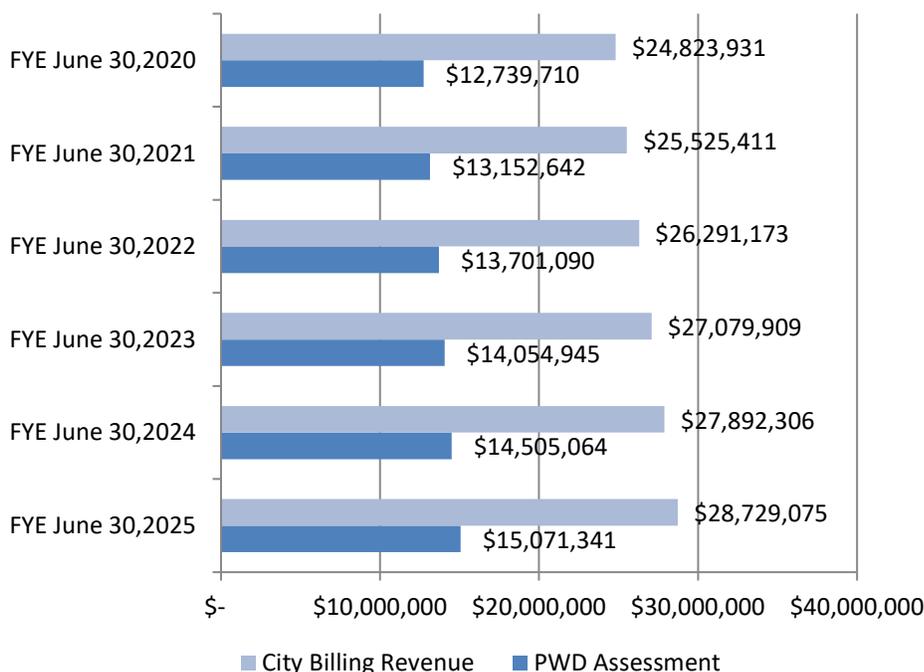
The proposed 2022 Operating Expense and Capital budgets are \$14,230,443 and \$7,235,000, respectively.

The Operating Expense budget is \$518,496 or 3.8%, higher than the previous year. Departmental expense increased by \$347,032 or 3.5%. Debt service decreased \$150,713 (5.5%) and renewal & replacement (direct and indirect) will increase \$322,177 to \$1,228,325. Some items included in the 2022 Capital plan are a force main upgrade on Baxter Blvd. and replacement of a standby generator at the East End WWTF.



### Assessment Compared to Ratepayers’ Billing

The municipality’s fiscal year end is June 30, while the District’s is December 31. The chart below compares the sewer billing cash as collected by the District on their behalf and the District’s assessment for services rendered. The municipality may incur additional sewer-related costs. The municipality determines whether to increase the sewer billing rates.



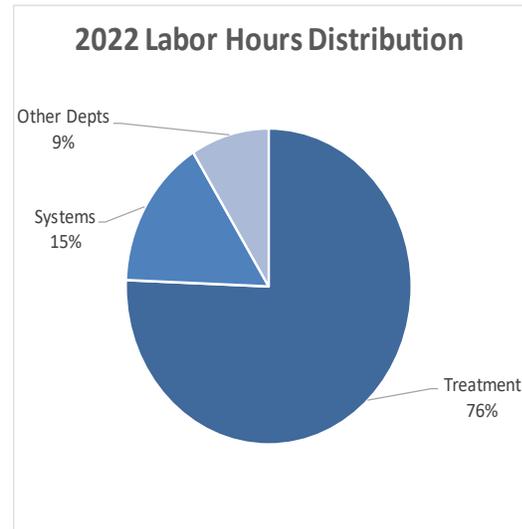
Revenue Assumptions:	
-	Consumption is the 12 months ending June 30, 2019
-	Rates Assumed:
Effective Date:	Base/Per HCF
Jul 1 2013	\$8.35
Jul 1 2014	\$8.81
Jul 1 2015	\$9.70
Jan 1 2016	\$8.20
Jan 1 2017	\$9.35
Jul 1 2017	\$9.65
Jul 1 2018	\$9.95
Jul 1 2019	\$10.40
Dec 1 2020	\$11.15
Sep 1 2021	\$11.80
Assumed 3% increase in July 2022 to 2025.	

## 2022 Operating Expense Highlights

**Salaries/Wages** – Budgeted expenses increased 0.9% or \$10,715 to \$1,210,044. District labor rates increased an average of 2.0% while hours for this fund decreased 0.7% or 305 hours.

**Employee Benefits** - The benefit rate (including FICA) decreased from 50.59% in 2020 to 46.84% in 2022 due to lower pension expenses. Overall, Employee Benefits expense decreased 6.4% (\$35,096).

**Biosolids Disposal** – Biosolids expense at Portland’s East End WWTF is projected to increase 6.4% (\$114,390) due to an estimated increase in the disposal cost of 11.1% (from \$90 to \$100/wet ton) and a 4.2% decrease in volume. The higher unit costs relates to increased regulator and public concern with per- and poly-fluoroalkyl substances (PFAS) with the impact of limiting the available outlets to dispose of biosolids.



**Chemicals** – Overall, this category is down \$99,434 or 13.7%. Sodium Bisulfite (down \$77.9k) is projected to have lower usage (39.4%) and Sodium Hypochlorite (down \$43.8k) is projected to have a lower per unit cost (down 13.4%). These savings are somewhat offset by a \$33.1k increase in Polymer due to higher usage (10.5%) and per unit cost (4.8%).

**Heat/Fuel Oil** – The majority of this category is pipeline delivered natural gas and container delivered propane at the East End WWTF. This budget increased \$1,965 (1.8%) to \$112,667 as per unit cost and usage estimates remained relatively stable.

**Purchased Power** – Power is expected to increase 10.4% (\$107,427). The budget for demand costs increased 2.0% and 6.6% for the East End WWTF and India Street WWPS, respectively. On August 1, 2021 there was a substantial increase to transmission rates. Energy rates for small and medium accounts were reduced by 6%.

**Regulatory/Taxes** – The State of Maine has imposed a \$10.00/wet ton of biosolids regulatory fee to deal with statewide issues regarding PFAS. The impact to this fund is \$188,820 in the 2022 Budget.

**Telephone & Other Utilities** – The budget increased \$21,969 (17.1%). Most of this increase is related to the \$15.8 increase in wastewater expense. This increase brings the budget in line with actual expenditures

**Support Services** – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer billing or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. The combined Support Services costs increased 0.6% (\$19,175). The pool of Support Services costs only increased 1.1% in the 2022 Budget. Higher costs in Engineering Services were mostly offset by lower costs in Environmental Services.

**Debt Service** – This is the annual principal and interest payments on bonds issued to finance capital projects. The expense will decrease \$150,713 (5.5%) due to the retirement of older debt.

**Renewal and Replacement** – This is the fund’s annual contribution to finance smaller capital projects. A contribution of \$1,228,325 will be made in 2022.

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$12,863,340	\$6,720,972	\$13,441,944	\$13,960,236	\$518,292	3.9%
Interest Income	117,640	3,937	60,003	20,207	-39,796	-66.3%
<u>Other Income</u>	<u>386,501</u>	<u>155,753</u>	<u>210,000</u>	<u>250,000</u>	<u>40,000</u>	<u>19.0%</u>
Total Revenue	13,367,481	6,880,662	13,711,947	14,230,443	518,496	3.8%
Salaries & Wages	1,142,274	570,892	1,199,329	1,210,044	10,715	0.9%
Employee Benefits	481,149	257,067	546,893	511,797	-35,096	-6.4%
Biosolids Disposal	1,366,998	855,297	1,773,810	1,888,200	114,390	6.4%
Chemicals	570,088	245,104	725,201	625,767	-99,434	-13.7%
Contracted Services	602,469	270,410	673,096	673,568	472	0.1%
Deferred Cost W/O	72,818	0	0	0	0	n/a
Heat/Fuel Oil	103,031	70,978	110,702	112,667	1,965	1.8%
Insurance	30,000	18,183	30,666	40,003	9,337	30.4%
Materials & Supplies	207,428	130,622	307,400	310,900	3,500	1.1%
Other Expense	31,641	-9,261	-13,795	-4,895	8,900	-64.5%
Purchased Power	1,013,640	490,216	1,033,359	1,140,786	107,427	10.4%
Regulatory/Taxes	40,701	1,921	36,350	225,220	188,870	519.6%
Tele/Other Utilities	158,801	79,394	128,619	150,588	21,969	17.1%
Transportation	55,933	23,824	80,791	75,633	-5,158	-6.4%
SS - Administration	1,372,706	725,733	1,564,063	1,561,392	-2,671	-0.2%
SS - Engineering Services	288,319	160,334	513,993	555,908	41,915	8.2%
SS - Environmental Services	277,724	153,671	299,313	274,597	-24,716	-8.3%
SS - Wastewater Services	1,095,302	518,543	1,002,105	1,005,624	3,519	0.4%
<u>SS - Water Services</u>	<u>15,827</u>	<u>7,079</u>	<u>28,838</u>	<u>29,966</u>	<u>1,128</u>	<u>3.9%</u>
Operating Expense	8,926,849	4,570,007	10,040,733	10,387,765	347,032	3.5%
Debt Service & Lease Expense	2,504,897	1,324,744	2,765,066	2,614,353	-150,713	-5.5%
Renewal & Replacement - Direct	1,090,000	350,000	700,000	1,000,000	300,000	42.9%
<u>Renewal &amp; Replace - Indirect</u>	<u>226,642</u>	<u>103,072</u>	<u>206,148</u>	<u>228,325</u>	<u>22,177</u>	<u>10.8%</u>
Total Expense	12,748,388	6,347,823	13,711,947	14,230,443	518,496	3.8%
Current Year Surplus (Deficit)	619,093	532,839	0	0		
Transfer to R&R	-498,067	0	0	0		
Return of Accumulated Surplus	-495,846	0	0	0		
<u>Prior Year Surplus</u>	<u>3,802,807</u>	<u>3,427,987</u>	<u>3,848,794</u>	<u>3,563,992</u>		
Accumulated Surplus	3,427,987	3,960,826	3,848,794	3,563,992		

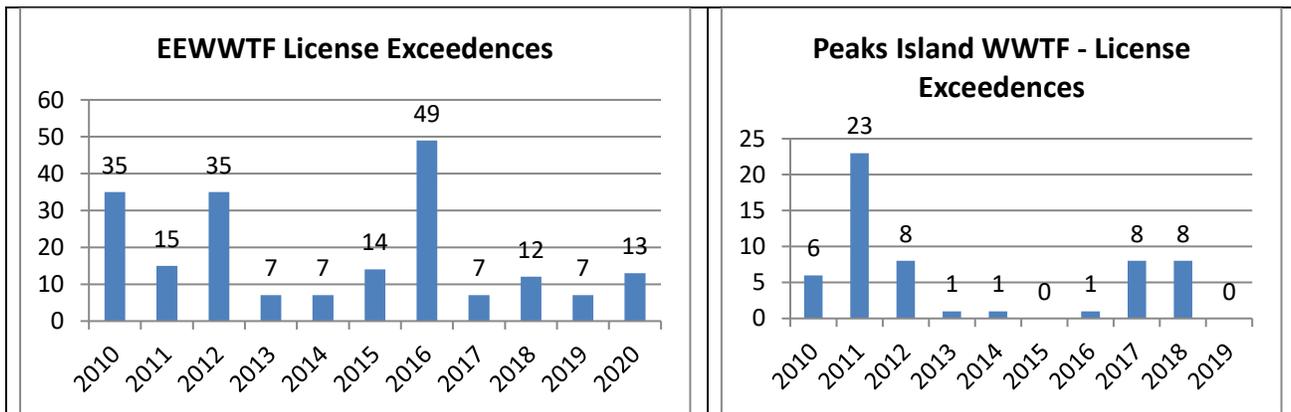
## Operation Summary

**Wastewater Treatment:** The Portland Water District owns, operates and maintains the interceptor and treatment facilities in the City of Portland. The largest facility, the East End WWTF is located off the Eastern Promenade while the Peaks Island facility is located by the ferry dock on the island.

EEWTF Parameter	Capacity	2020 Facility Avg	2020 - % Capacity Used
Flow (million gallons per day)	19.8 mgd	15.2 mgd	78%
Biosolids Removed (wet tons/month)	N/A	1,608 wt/month	

### Effluent Permit Requirements:

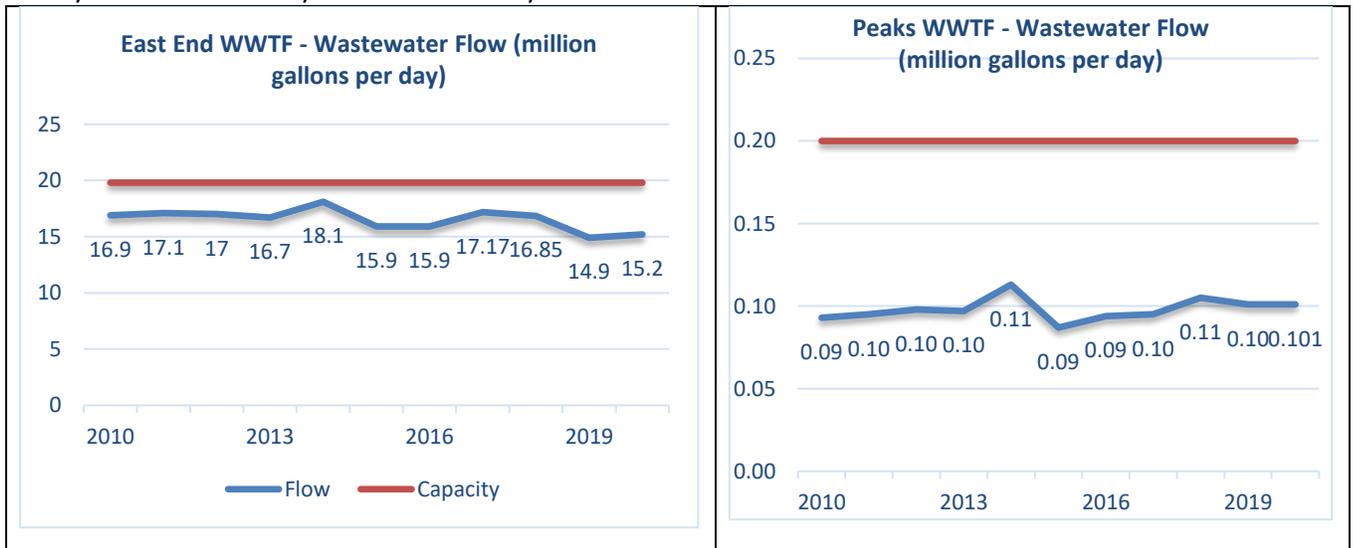
Parameter	Discussion
Biological Oxygen Demand (BOD)	Measure of organic material and the strength of pollution. The treatment plant removed 97% of the BOD; well above the required 85% removal.
Total Suspended Solids (TSS)	Measure of suspended material in the incoming wastewater; also the strength of pollution. The treatment plant removed 96% of the TSS, well above the required 85% removal.
Total Residual Chlorine	Used for disinfecting the treated effluent, chlorine must be removed before the effluent is discharged. The permit limit was met at all times.
Fecal Coliform Bacteria	Following disinfection with chlorine, the fecal coliform level is monitored to confirm the treatment plant effluent was properly disinfected.
Effluent Nitrogen	Nitrogen is considered a pollutant that can contribute to water quality issues. The 2017 permit requires monitoring of nitrogen during the warmer months and the development of a “nitrogen optimization” approach where PWD will be asked to operate the plant to reduce the effluent nitrogen loading using existing facilities. In 2020, the plant demonstrated a 75% reduction in effluent nitrogen loading from historic levels from May to September. This is consistent to levels achieved in the past few years.



### Operation Summary (continued)

The 5-year permit issued in 2017 asked PWD to submit an annual “nutrient optimization” report that includes effluent nitrogen results and our efforts to manage nitrogen. The new aeration system is anticipated to be able to achieve a 20 – 40% reduction in effluent nitrogen levels. The plant has demonstrated around a 70% reduction in effluent nitrogen loading from historic levels from May to September over the past few years. In 2020, the plant demonstrated a 75% seasonal reduction. Current performance is comparable to past results.

The treatment facility on Peaks Island provides wastewater treatment to the residents and businesses on Peaks Island. The Peaks Island WWTF permit requires monitoring of effluent nitrogen from the treatment plant. Waste solids generated on the island are hauled to the mainland and processed at the Portland’s East End Wastewater Treatment Facility. With the completion of the Island Avenue sewer extension project and eventual connection of those customers adjacent to the new sewer, the capacity in the treatment plant will have essentially been reached (the summer months, when the population of residents and visitors increases, are the times that strain treatment capacity). In 2018, an analysis of the current capacity, along with suggested upgrades or opportunities for capacity improvements, was completed. Treatment plants have both a hydraulic (flow) and loading (amount of pollution that can be treated) capacity. As shown below, while specific high volume storm events are problematic, the plant flow is within the design capacity of the plants. Additional sewer connections beyond the current amount and those connected as part of the sewer extension, cannot be readily accommodated by the current facility.



#### Wastewater Conveyance – interceptors and pumping stations

Parameter	2021 Actual to Sept	2022 Projected
Preventive Work Orders	187	200
Corrective Work Orders	36	50
Wet wells cleaned	10	15
Debris removed (tons)	8.5	15
Dry Weather Overflows	4	0

## Operation Summary (continued)

### 2021 Other Highlights

- Staffing schedules were adjusted to provide more dedicated operator time to operations during daytime hours. This will provide increased resources for enhanced operations, training, cleaning, and general maintenance of the treatment plant.
- Odor complaints related to the East End treatment plant have decreased due to the new aeration system, a new odor control unit at the Northeast Pump Station, and ongoing operational and maintenance efforts on existing plant odor control systems.
- Monthly CSO activities continue to be monitored and reported by PWD for regular distribution to stakeholders. Sites are continuously monitored by web-based software. In 2016, many of these decade-old units had reached the end of their service life and were replaced with newer models. This should ensure that the monitors continue to provide monitoring and alarming of CSO sites for the next 10 years.
- The diffused aeration system construction was completed in the summer of 2017. This system has had several operational benefits, including: improved sludge settleability, reduced odors from the aeration system, and the ability to attempt nutrient optimization in the warmer months. Treatment efficiency has improved as well, with an average of 96% of pollution removed by the facility.
- The aeration system has allowed the East End facility to manage nitrogen in the warmer months. To date in 2021, the seasonal loading has been reduced by 75% from historical levels. We worked with the supplier of an effluent nitrogen analyzer and the unit has reliably measured nitrogen levels in the effluent.
- Construction of an upgrade to the Baxter Blvd. pump station has commenced and will coincide with the City's CSO work.
- PWD has participated as a member of the City of Portland's Integrated Planning Team. This effort reviewed permitting and compliance obligations associated with the City's collection system, the City's stormwater system, and the Portland Water District's facilities. The City is in final negotiation of the plan with regulators.
- An electrical distribution system upgrade is underway at the facility to address the aging system.
- Construction of the headworks bypass channel was completed and will provide the ability to avoid issues caused by screening system issues during peak flows.

### 2022 Work Plan

- The new software and Asset Management Program will continue to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders.
- The City of Portland has embarked on a two-year Integrated Planning effort to prioritize water quality commitments. This effort will assess combined sewer, stormwater, and wastewater treatment obligations and prioritize the use of resources to address the various efforts with a goal of improving receiving water quality. PWD remains engaged as a partner in this ongoing effort.
- An assessment of long-term biosolids management options will be completed in response to contaminants of emerging concern, like PFAS, and instability in the solid waste management systems in Maine have created significant instability. This assessment will help determine future approaches to manage biosolids.
- WE will be applying for a renewed permit in 2022. This may consider nutrient reduction and will depend on the work completed by MEDEP to develop nutrient criteria.

## Capital Summary

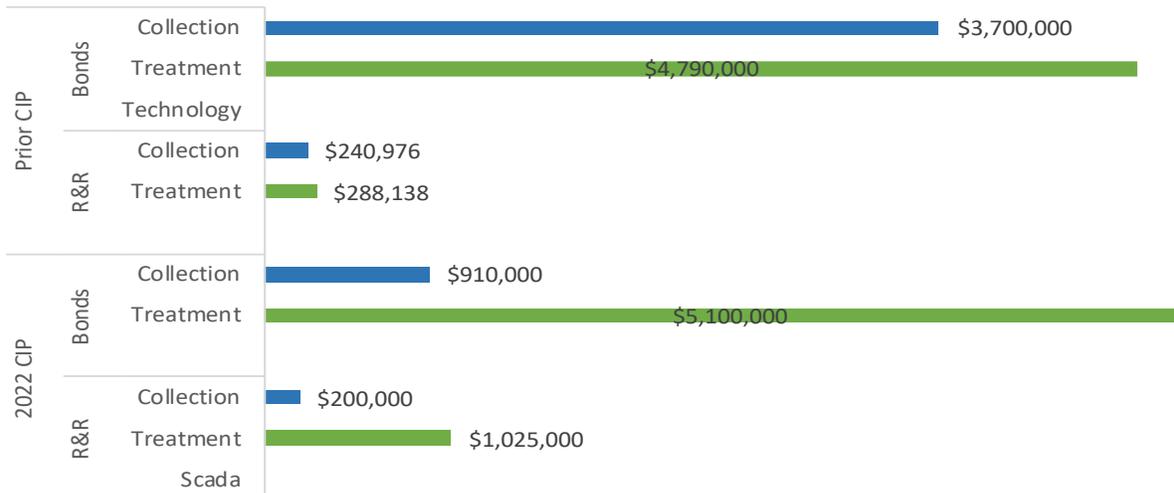
A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects. Detailed descriptions of the projects can be found in the Capital Finance and Capital Expenditures sections.

### Expenditures by CIP Year:

Projects:	<u>Prior CIP</u>	<u>2022 CIP</u>	<u>Total</u>
<b>SCADA &amp; Technology</b>	\$ -	\$ -	\$ -
<b>WW Collection &amp; Pumping</b>	\$ 3,700,000	\$ 1,110,000	\$ 4,810,000
<b>WW Treatment</b>	\$ 4,790,000	\$ 6,125,000	\$ 10,915,000
<b>Total by CIP Year</b>	<b>\$ 8,490,000</b>	<b>\$ 7,235,000</b>	<b>\$ 15,725,000</b>

### Source of Funds:

	<u>R&amp;R Fund</u>	<u>Bond Issue 2022</u>	<u>Bond Issue &gt; 2022</u>	<u>Total Funding</u>
Beginning Balance	\$ 4,523,340			
2022 Contribution	\$ 1,000,000			
<b>Total R&amp;R Balance Available</b>	<b>\$ 5,523,340</b>			
Projects:				
<b>SCADA &amp; Technology</b>	\$ -			\$ -
<b>WW Collection &amp; Pumping</b>	\$ 200,000		\$ 4,610,000	\$ 4,810,000
<b>WW Treatment</b>	\$ 1,025,000	\$ 4,790,000	\$ 5,100,000	\$ 10,915,000
<b>Total</b>	<b>\$ 1,225,000</b>	<b>\$ 4,790,000</b>	<b>\$ 9,710,000</b>	<b>\$ 15,725,000</b>
Ending Balance	\$ 4,298,340			



**Capital Summary (continued)****Projects:**

	<b><u>R&amp;R Fund</u></b>	<b><u>Future Bond</u></b>	<b><u>Funding Total</u></b>	<b><u>Bond Issue Year</u></b>
<b>WW Collection &amp; Pumping</b>				
Stroudwater PS Conversion to Submersible - 3006		\$ 510,000	\$ 510,000	2023
Portland Pump Station R&R - 3135	\$ 50,000		\$ 50,000	
Baxter Blvd PS Upgrades Design - 3144		\$ 250,000	\$ 250,000	2023
Baxter Blvd PS Construction - 3143		\$ 1,950,000	\$ 1,950,000	2023
Modeling and Flow Assessment - 3162	\$ 50,000		\$ 50,000	
Garrison St PS Upgrade to Submersible - 3184		\$ 750,000	\$ 750,000	2023
Congress St PS Upgrade to Submersible - 3185		\$ 750,000	\$ 750,000	2023
Westbrook St PS Upgrades - 3186	\$ 100,000		\$ 100,000	
Baxter Blvd PS Forcemain Upgrade - 3257		\$ 400,000	\$ 400,000	2023
<b>WW Treatment</b>				
<b><u>East End Treatment Facility</u></b>				
Electrical System Upgrade - 2470, 2711, 3010, 3014		\$ 4,790,000	\$ 4,790,000	2022
Dewatering Odor Control Rehab & Expansion - 3009		\$ 100,000	\$ 100,000	2023
Process Gate Automation - 3020	\$ 50,000		\$ 50,000	
East End WWTF R&R - 3133	\$ 75,000		\$ 75,000	
Return Sludge Piping Replacement - 3148		\$ 200,000	\$ 200,000	2023
Primary Sludge Handling & Gallery Upgrade - 3152		\$ 4,800,000	\$ 4,800,000	2023
Existing Standby Generator Replacement - 3237	\$ 600,000		\$ 600,000	
Locker Room Renovation - 3248	\$ 125,000		\$ 125,000	
Rotary Press Rehabilitation - 3249	\$ 125,000		\$ 125,000	
<b><u>Peaks Island Treatment Facility</u></b>				
Peaks Island R&R - 3131	\$ 20,000		\$ 20,000	
Decanter and Mixer Upgrade, Tanks A & B - 3193	\$ 30,000		\$ 30,000	
<b>Total</b>	<b>\$ 1,225,000</b>	<b>\$ 14,500,000</b>	<b>\$ 15,725,000</b>	

## Projections for Rate-Making Purposes

Multi-year projections are made for each of the wastewater funds' assessment. The projections provide guidance to the wastewater municipalities to assist them in determining their wastewater sewer rates. A summary of the projection is provided on next page.

### Major Assumptions:

The assumptions incorporated in the projections are as follows:

- Salary increases of 3.0% in 2023 and 2% in other years. No change in number of employees.
- Benefit increases of 10% in 2023 (health insurance increase) and 5% in other years.
- Other expenses increase between 2% and 5% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2022 5-year capital plan. New debt assumed a 20-year life between 1% and 3.5% interest depending on funding source and year of financing. New debt is funding a number of projects including upgrades to the primary sludge handling system and secondary clarifier sludge rake upgrades at the treatment facility and 7 pump stations.

### Summary of Projection Impact:

Assessment is projected to increase to \$16,100,310 in 2026, an 15% increase over 2022 Budget, with the most significant cost change related to debt service issued to finance capital projects. Operating Ratios are better than target and reserve balance are below the target.

### Reserve Fund Balances



### Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

2018	2019	2020	2021	2022	2023	2024	2025	2026
21%	20%	19%	20%	18%	18%	20%	21%	25%

### Debt Service Ratio – Target: Greater or Equal to 125%

2018	2019	2020	2021	2022	2023	2024	2025	2026
150%	136%	153%	133%	147%	146%	139%	137%	125%

## Projections for Rate-Making Purposes (continued)

### Operating Fund:

	2020 Actual	2021 Budget	2022 Budget	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
<b>Revenues:</b>							
Assessment Income	12,863,340	13,441,944	13,960,236	14,149,653	14,860,475	15,282,206	16,100,310
Interest Income	114,640	60,003	20,207	20,207	22,228	24,451	24,451
Other Income	386,501	210,000	250,000	250,000	250,000	250,000	250,000
<b>Total Revenues</b>	<b>13,364,481</b>	<b>13,711,947</b>	<b>14,230,443</b>	<b>14,419,860</b>	<b>15,132,703</b>	<b>15,556,657</b>	<b>16,374,761</b>
<b>Operating Expenses:</b>							
Salaries & Wages	1,142,274	1,199,329	1,210,044	1,246,345	1,271,272	1,296,697	1,322,631
Employee Benefits	481,149	546,893	511,797	562,977	591,126	620,682	651,716
Biosolids Disposal	1,366,998	1,773,810	1,888,200	1,933,517	1,964,453	1,995,884	2,027,818
Chemicals	570,088	725,201	625,767	644,540	657,431	670,580	683,992
Contracted Services	602,469	673,096	673,568	693,775	707,651	721,804	736,240
Deferred Cost W/O	72,818	0	0	0	0	0	0
Heat/Fuel Oil	103,031	110,702	112,667	116,047	118,368	120,735	123,150
Insurance	30,000	30,666	40,003	41,203	42,027	42,868	43,725
Materials & Supplies	207,428	307,400	310,900	320,227	326,632	333,165	339,828
Other Expense	31,641	22,555	-4,895	-5,042	-5,143	-5,246	-5,351
Purchased Power	1,013,640	1,033,359	1,140,786	1,140,786	1,140,786	1,140,786	1,140,786
Regulatory/Taxes	40,701	0	225,220	231,977	236,617	241,349	246,176
Tele/Other Utilities	158,801	128,619	150,588	155,106	158,208	161,372	164,599
Transportation	55,933	80,791	75,633	77,902	79,460	81,049	82,670
SS - Administration	1,372,706	1,564,063	1,561,392	1,635,558	1,680,536	1,726,751	1,774,237
SS - Engineering Services	288,319	513,993	555,908	582,314	598,328	614,782	631,689
SS - Environmental Services	277,724	299,313	274,597	287,640	295,550	303,678	312,029
SS - Wastewater Services	1,095,302	1,002,105	1,005,624	973,391	1,000,159	1,027,663	1,055,924
SS - Water Services	15,827	28,838	29,966	31,389	32,252	33,139	34,050
	8,926,849	10,040,733	10,387,765	10,669,652	10,895,713	11,127,738	11,365,909
<b>Debt Service</b>							
Renewal & Replacement - Direct	1,090,000	700,000	1,000,000	1,000,000	1,000,000	1,000,000	800,000
Renewal & Replace - Indirect	226,642	206,148	228,325	186,950	186,950	186,950	186,950
Capital Finance Expense	3,821,539	3,671,214	3,842,678	3,750,208	4,236,990	4,428,919	5,008,852
<b>Total Operating Expenses</b>	<b>12,748,388</b>	<b>13,711,947</b>	<b>14,230,443</b>	<b>14,419,860</b>	<b>15,132,703</b>	<b>15,556,657</b>	<b>16,374,761</b>
Current Year Surplus(Deficit)	616,093	0	0	0	0	0	0
Transfer to Capital Reserve	-498,067						
Prior Year Surplus	3,106,012	3,848,794	3,563,992	3,563,992	3,563,992	3,563,992	3,563,992
Accumulated Surplus	3,722,105	3,848,794	3,563,992	3,563,992	3,563,992	3,563,992	3,563,992
Target Balance(25% of budget)	3,187,097	3,427,987	3,557,611	3,604,965	3,783,176	3,889,164	4,093,690
Above/(Below)	535,008	420,807	6,381	-40,973	-219,184	-325,172	-529,698

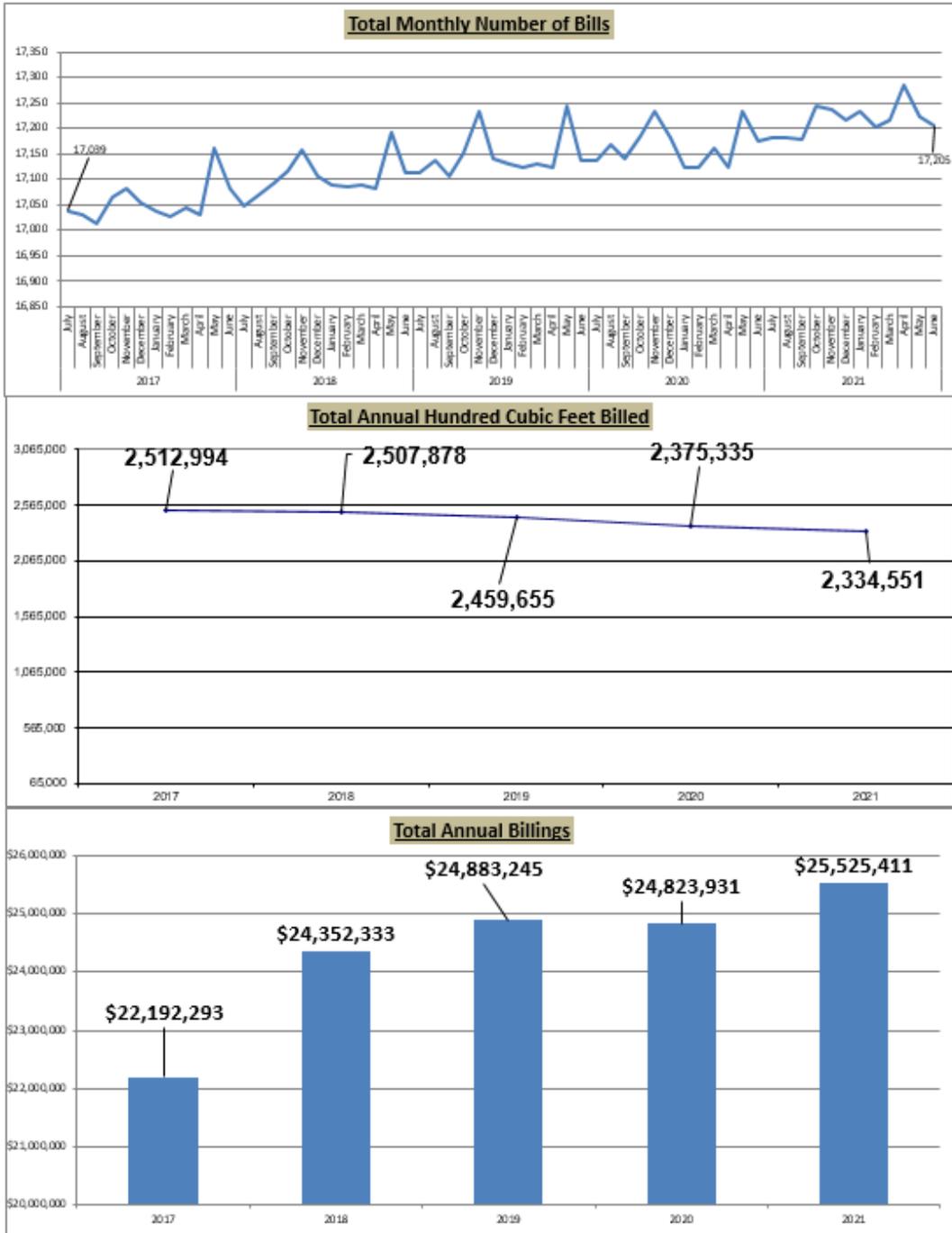
**Capital Expenditures:** (See details in the Capital Expenditure section) Target Balance: \$5,770,000

	2022 Budget	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
R&R Balance BOY	\$ 4,623,340	\$ 4,398,340	\$ 4,263,340	\$ 5,068,340	\$ 4,963,340
Contribution	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 800,000
Withdrawals	\$ (1,225,000)	\$ (1,135,000)	\$ (195,000)	\$ (1,105,000)	\$ (295,000)
R&R Balance EOY	\$ 4,398,340	\$ 4,263,340	\$ 5,068,340	\$ 4,963,340	\$ 5,468,340

### Sewer Billing Statistics

The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District’s water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly. The total billing decline between 2016 and 2017 is the result of the City’s implementation of a storm water fee to cover costs previously collected as part of sewer billings.

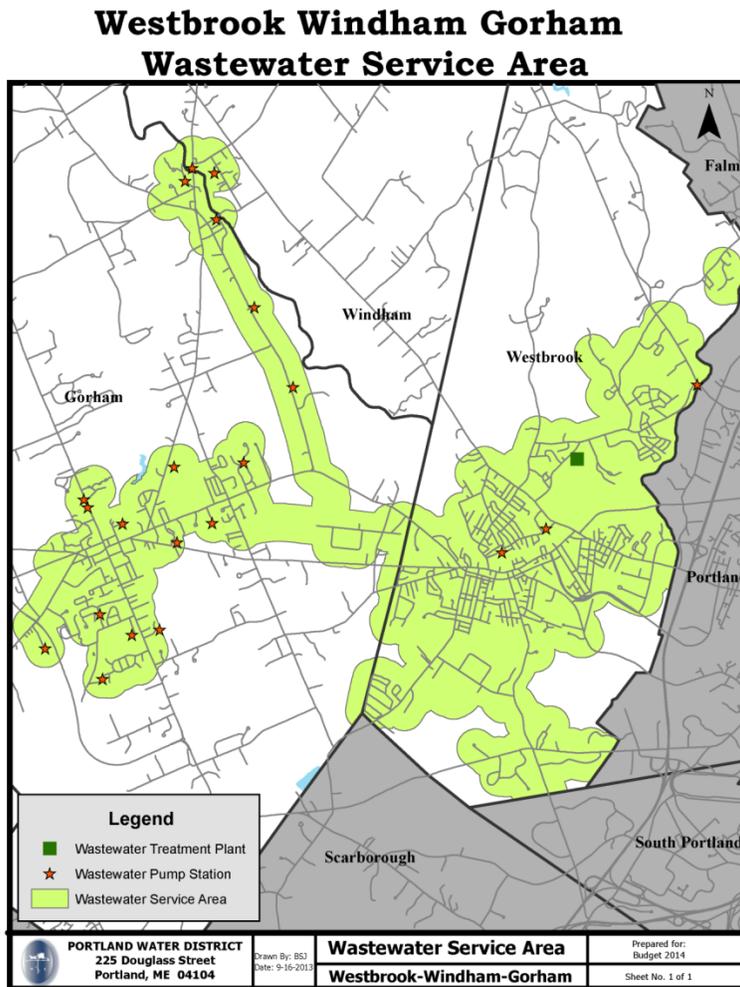
**By Municipal Fiscal Year: Jul 1 to Jun 30**



## Fund: Wastewater - Westbrook

### Background

The Portland Water District's charter authorizes the District to provide wastewater treatment, collection system, and interceptor service to the city. Westbrook's wastewater is treated at the treatment facility located in Westbrook and jointly used by the towns of Windham and Gorham. The city maintains the collection system-collectors that transport wastewater from user's property to the District's interceptor system. Additionally, by contract, the District provides utility billing services.



### **Summary of Services Provided:**

#### **Treatment**

*2.54 million gallons/day*

#### **Collection System**

*2 Westbrook only & 1  
Joint use Pump Stations  
with 8.2 miles of pipe*

#### **Utility Billing**

*Annual Billings of  
\$4,974,967 on 4,752  
Customers (avg.  
\$87.24/month)*

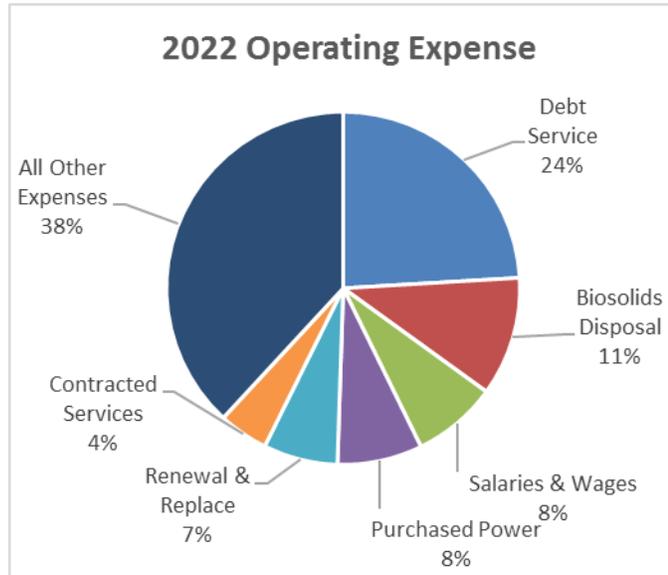
## Fund: Wastewater - Westbrook

### 2022 Financial Summary

The proposed assessment of \$3,173,124 is 9.3% increase over the previous year. This assessment is less than the amount in the forecast provided to the City last year.

The proposed 2022 Operating Expense and Capital budgets are \$3,240,262 and \$119,900, respectively.

The Total Expense budget is \$247,802 higher (8.3%) than the previous year. Operating Expense increased by \$178,266 or 8.6%, Debt Service decreased 27.0% (\$165,781) and Renewal & Replacement (direct and indirect) funding decreased \$96,245 to \$220,535.



A portion of the 2022 Capital budget will be a locker room renovation at the Westbrook Regional treatment facility. Westbrook’s prorated cost for this is \$66,600. The rest of the budget is geared towards pump station and treatment facility capital work that comes up throughout the year.

### Assessment Compared to Ratepayers’ Billing

The municipality’s fiscal year end is June 30, while the District’s is December 31. The chart below compares the sewer billing cash as collected by the District on their behalf and the District’s assessment for services rendered. The municipality may incur additional sewer-related costs. The municipality determines whether to increase the sewer billing rates.



**Revenue Assumptions:**

- Consumption assumed is based on consumption through December 31, 2019
- Rates Assumed:

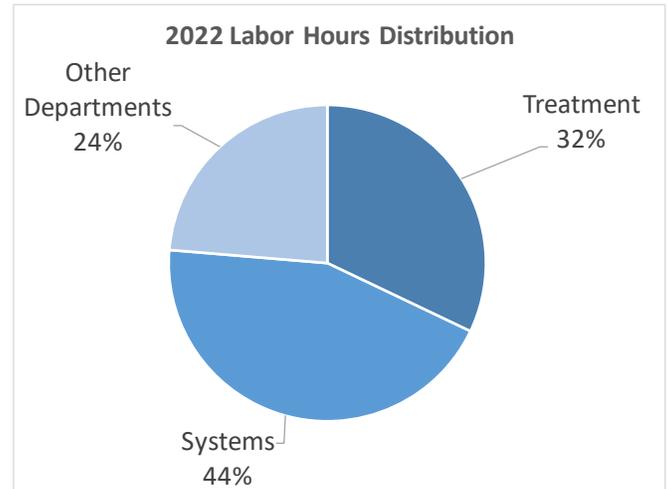
Effective Date:	Base/Per HCF
Jan 2013	\$11.13/\$6.13
Jan 2019	\$11.53/\$6.53
Jan 2020	\$11.93/\$6.93
Jan 2021	\$12.33/\$7.00

## 2022 Operating Expense Highlights

**Salaries/Wages** – The expense increase of 0.9% (\$2,267) resulted in a budget amount of \$252,011. District labor rates increased an average of 2.0% while hours for this fund decreased 0.6% or 19 hours.

**Employee Benefits** – The benefit rate (including FICA) decreased from 50.59% in 2020 to 46.84% in 2022 due to lower pension expenses. Overall, Employee Benefits expense decreased 7.2% (\$8,495).

**Biosolids Disposal** – Biosolids expense at the Westbrook/Gorham/Windham Regional WWTF is projected to increase 11.3% due to an estimated increase in the disposal cost of 11.1% (from \$90 to \$100.00/wet ton) and a 0.2% estimated increase in volume. The higher unit costs relates to continued regulator and public concern with per- and poly-fluoroalkyl substances (PFAS) with the impact of limiting the available outlets to dispose of biosolids. Biosolids expense for Westbrook is projected to increase \$34,161 (10.6%). Westbrook's share of allocated treatment costs decreased 0.5% to 83.5%.



**Chemicals** – Chemical expense regional treatment plant rose 49.4% due primarily to higher usage for Polymer (60.1%), Sodium Hypochlorite (50.7%) and Sodium Bisulfite (32.5%). Westbrook's expense increased 48.5% or \$46,196.

**Heat/Fuel Oil** – This expense is projected to increase \$11,283 (50.2%). The increase is due to the expected rise in the per gallon cost of heating oil at the Westbrook Regional Wastewater Treatment Facility from \$1.69 to \$2.29 gallon and 6.5% increase in usage.

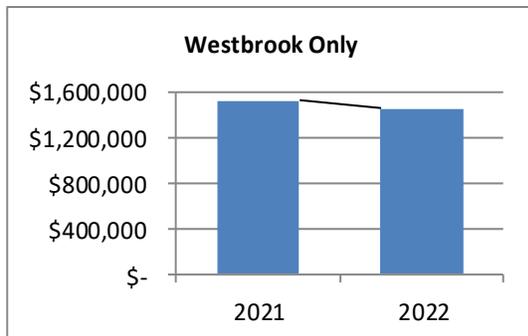
**Purchased Power** – Purchased Power increased by 8.3% (\$19,351). Budgeted demand usage went up 3.4% and 6% for the Westbrook Regional WWTF and three pump stations, respectively. On August 1, 2021 there was a substantial increase to transmission rates. Energy rates for small and medium accounts were reduced by 6%.

**Regulatory/Taxes** – The State of Maine has imposed a \$10.00/wet ton of biosolids regulatory fee to deal with statewide issues regarding PFAS. The impact to this fund is \$35,387 in the 2022 Budget.

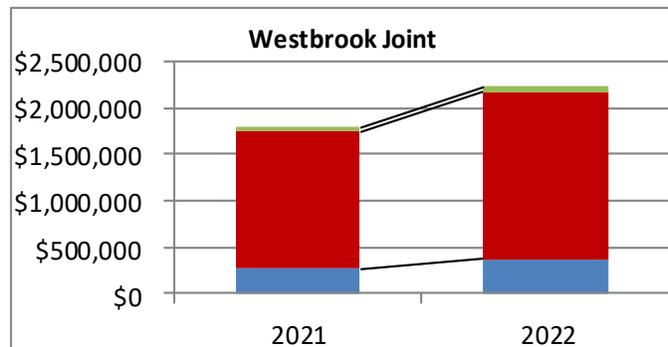
**Support Services** – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer service or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services increased \$18,263 or 2.3%. The pool of Support Services costs only increased 1.1% in the 2022 Budget. Higher costs in Administration and Engineering Services and Wastewater were partially offset by lower costs in Environmental Services and Wastewater.

**Debt Service** – The annual principal and interest payments on bonds issued to finance capital projects. increased 27.0% (\$165,781) due to the proposed issuance of new debt for projects at the Westbrook Regional Wastewater Treatment Facility relating to aeration and sludge odor control.

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$2,820,768	\$1,451,622	\$2,903,244	\$3,173,124	\$269,880	9.3%
Interest Income	80,316	6,424	41,216	16,938	-24,278	-58.9%
Other Income	51,790	25,868	48,000	50,200	2,200	4.6%
<b>Total Revenue</b>	<b>2,952,874</b>	<b>1,483,914</b>	<b>2,992,460</b>	<b>3,240,262</b>	<b>247,802</b>	<b>8.3%</b>
Salaries & Wages	209,966	134,972	249,744	252,011	2,267	0.9%
Employee Benefits	91,863	63,860	117,373	108,878	-8,495	-7.2%
Biosolids Disposal	270,589	168,825	319,712	353,873	34,161	10.7%
Chemicals	152,753	73,572	95,321	141,517	46,196	48.5%
Contracted Services	232,827	61,202	141,281	147,268	5,987	4.2%
Deferred Cost W/O	18,462	0	0	0	0	n/a
Heat/Fuel Oil	33,156	17,369	22,469	33,752	11,283	50.2%
Insurance	6,355	4,926	5,709	10,798	5,089	89.1%
Materials & Supplies	57,651	23,703	51,581	51,769	188	0.4%
Other Expense	4,069	283	5,622	5,440	-182	-3.2%
Purchased Power	227,291	112,118	232,623	251,974	19,351	8.3%
Regulatory/Taxes	3,627	5,337	3,780	39,145	35,365	935.6%
Tele/Other Utilities	30,108	11,992	25,713	34,504	8,791	34.2%
Transportation	6,748	5,806	13,296	13,298	2	0.0%
SS - Administration	312,996	162,341	351,613	365,694	14,081	4.0%
SS - Engineering Services	58,876	32,420	103,417	114,912	11,495	11.1%
SS - Environmental Services	121,340	59,922	116,805	110,453		
SS - Wastewater Services	174,887	102,185	198,853	197,656	-1,197	-0.6%
<u>SS - Water Services</u>	<u>3,938</u>	<u>1,761</u>	<u>7,176</u>	<u>7,412</u>	<u>236</u>	<u>3.3%</u>
Operating Expense	2,017,502	1,042,594	2,062,088	2,240,354	178,266	8.6%
Debt Service & Lease Expense	612,360	294,105	613,592	779,373	165,781	27.0%
Renewal & Replacement - Direct	300,000	135,000	270,000	168,000	-102,000	-37.8%
<u>Renewal &amp; Replace - Indirect</u>	<u>51,384</u>	<u>23,388</u>	<u>46,780</u>	<u>52,535</u>	<u>5,755</u>	<u>12.3%</u>
<b>Total Expense</b>	<b>2,981,246</b>	<b>1,495,087</b>	<b>2,992,460</b>	<b>3,240,262</b>	<b>247,802</b>	<b>8.3%</b>
Current Year Surplus (Deficit)	-28,372	-11,173	0	0		
Transfer to R&R	0	0	0	0		
Return of Accumulated Surplus	-118,265	0	0	0		
Prior Year Surplus	851,256	704,619	771,710	638,566		
Accumulated Surplus	704,619	693,446	771,710	638,566		



**Westbrook Only** – Westbrook Only expenses were down \$67.5k (4.4%) due to Renewal & Replacement costs.

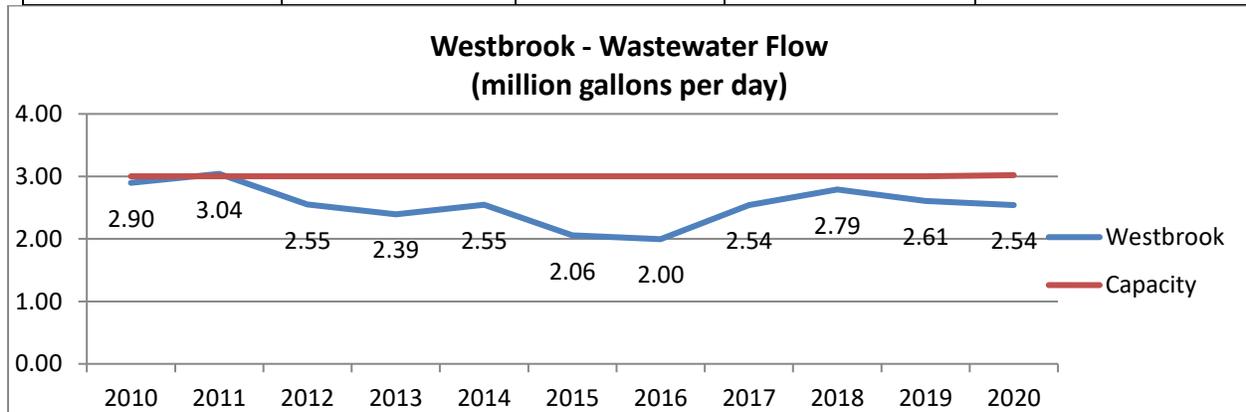


**Westbrook JT** – Expense up 24.5%; Westbrook’s share of expense down 0.5% to 83.5%, expense up \$315.3k (21.4%).

### Operation Summary

**Wastewater Treatment:** The wastewater generated in the City of Westbrook is pumped to the Westbrook/Gorham/Windham Regional WWTF on Park Road. Flows from the Little Falls section of Gorham and the Town of Windham, including the Maine Correctional Center, are conveyed to this facility. The table below depicts flows from each contributing community. The chart illustrates capacity used for each community and total plant capacity being used based on the treatment plant capacity of 4.54 MGD.

Municipality (Design Flow)	2020 Flow (mgd)	% of 2020 WWTF Flow	Reserved Capacity (mgd)	% of Capacity Used
Westbrook (66.6%)	2.54	83.6 %	3.023	84 %
Gorham (30.8%)	0.41	13.5 %	1.398	29 %
Windham (2.6%)	0.088	2.9 %	0.118	75 %
Total Plant Flow	3.04		4.54	67 %



The following tables depict some of the key parameters that are monitored at the facility.

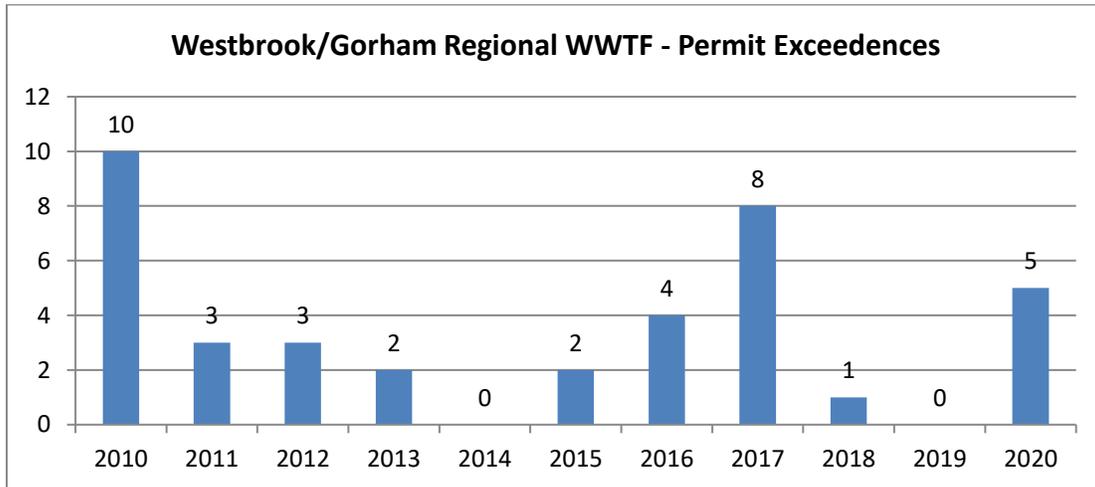
WGWTF Parameter	DEP Limit	2020 Facility Average
Biosolids Removed (wet tons/month)	N/A	370 wet ton/month

Parameter	Discussion
Biological Oxygen Demand (BOD)	Measure of organic material and the strength of pollution. The treatment plant removed 96% of the BOD, well above the required 85% removal.
Total Suspended Solids (TSS)	Measure of suspended material in the incoming wastewater. The treatment plant removed 96% of the TSS, well above the required 85% removal.
Total Residual Chlorine	Used for disinfecting the treated effluent, chlorine must be removed before the effluent is discharged. The permit limit was met at all times.
Fecal Coliform Bacteria	Following disinfection with chlorine, the fecal coliform level is monitored to confirm the treatment plant effluent was properly disinfected.
Phosphorus	The renewed 5-year permit includes a requirement to monitor phosphorus in the plant's effluent discharge. Phosphorus can contribute to water quality concerns that might include algae and low dissolved oxygen. The monitoring will likely create a baseline for consideration if effluent permit limitations are established in the future.

## Operation Summary (continued)

### Effluent Permit Requirements:

The effluent permit was renewed in 2017. The permit included reductions in effluent monitoring requirements due to the plant's past performance and the inclusion of a requirement to monitor effluent phosphorus. The City of Westbrook is a joint permittee for their obligations under the CSO Long Term Control Plan.



### Wastewater Conveyance – interceptors and pumping stations

Parameter	2021 Actual to Sept	2022 Projected
Preventive Work Orders	79	72
Corrective Work Orders	8	20
Wet wells cleaned	18	3
Debris removed (tons)	24.4	35
Dry Weather Overflows	0	0

### 2021 Other Highlights

- The Asset Management Program continues to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations. The Maintenance Manager/Planner Scheduler position, which was created in 2018, has helped to increase reliance on our program and is helping to implement a new system.
- The aeration system at the Westbrook/Gorham/Windham Regional WWTF was evaluated in 2015. Several possible approaches to design of the new system were identified and are dependent on future phosphorus permit limits. The loadings to the treatment facility have increased and are creating some operational challenges and additional costs. Construction of the project is underway and will continue for the new couple of years.

## 2021 Other Highlights (continued)

- Recognizing the increased loading at the treatment plant and in anticipation of the aeration system upgrade in 2021, acceptance of septage at the plant has ceased until after the completion of the aeration upgrade. Septage is being accepted at the East End WWTF in Portland.
- The dewatering polymer system was upgraded and odor control units are being installed in the solids handling areas of the process building to reduce plant odors.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis at the three pump stations in Westbrook.
- Construction of the recent upgrade of the Dana Court Pump Station took place in 2018-2019. This is the final of the three large stations in Westbrook to have an upgrade completed (Cottage Place and East Bridge St. upgrades were completed in the past). The upgrade included the installation of a new screening system that was similar to the system previously installed at the other pump stations in Westbrook.
- The new dewatering system (screw press) at the treatment facility was installed in 2018. Following an extended start-up, the Operations Team has been able to optimize the equipment and performance of the system has increased dramatically. This resulted in decreased costs related to the management of biosolids produced at the treatment plant.

## 2022 Work Plan

- The Asset Management Program will continue to drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders for each of the pump stations.
- Wet wells will continue to be scheduled for cleaning on a quarterly basis.
- Construction of the aeration system at the treatment plant will continue and the plant team will be working to operate the facility through the project.
- A modernization of the treatment plant's locker rooms will be completed to better meet the needs of our changing workforce.
- The screens at our feeder pump stations (which supply all of the flow to the treatment plant) will be replaced with finer screens that will remove additional materials. This is expected to protect the equipment installed during the aeration system upgrade.
- An assessment of long-term biosolids management options will be completed in response to contaminants of emerging concern, like PFAS, and instability in the solid waste management systems in Maine have created significant instability. This assessment will help determine future approaches to manage biosolids.

## Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects. Detailed descriptions of the projects can be found in the Capital Finance and Capital Expenditures sections.

### Expenditures by CIP Year:

	<u>Prior CIP</u>	<u>2022 CIP</u>	<u>Total</u>
Projects:			
<b>WW Collection &amp; Pumping</b>			
Westbrook Pump Station R&R - 3134		\$ 20,000	\$ 20,000
<b>WW Treatment</b>			
Aeration & Clarifier Construction - 3023 (prorated)	\$ 5,328,000		\$ 5,328,000
Treatment Plant R&R - 3132 (prorated)		\$ 33,300	\$ 33,300
Locker Room Renovation - 3247 (prorated)		\$ 66,600	\$ 66,600
Total by CIP Year	<u>\$ 5,328,000</u>	<u>\$ 119,900</u>	<u>\$ 5,447,900</u>

### Source of Funds:

	<u>R&amp;R Fund</u>	<u>Bond Issue 2022</u>	<u>Bond Issue &gt; 2022</u>	<u>Total Funding</u>
Beginning Balance	\$ 3,842,876			
2022 Contribution	\$ 168,000			
Total R&R Balance Available	<u>\$ 4,010,876</u>			
Projects:				
<b>WW Collection &amp; Pumping</b>	\$ 20,000			\$ 20,000
<b>WW Treatment</b>	\$ 99,900	\$ 2,664,000	\$ 2,664,000	\$ 5,427,900
Total	<u>\$ 119,900</u>	<u>\$ 2,664,000</u>	<u>\$ 2,664,000</u>	<u>\$ 5,447,900</u>
Ending Balance	<u>\$ 3,890,976</u>			

**Prorated Projects:** Costs of projects done on infrastructure used by multiple communities are 'prorated' between the municipalities based on relative design capacity.

### Projections for Rate-Making Purposes

Multi-year projections are made for each of the wastewater funds’ assessment. The projections provide guidance to the wastewater municipalities to assist them in determining their wastewater sewer rates. A summary of the projection is provided on next page.

#### Major Assumptions:

The assumptions incorporated in the projections are as follows:

- Salary increases of 3.0% in 2023 and 2% in other years. No change in number of employees.
- Benefit increases of 10% in 2023 (health insurance increase) and 5% in other years.
- Other expenses increase between 2% and 5% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2022 5-year capital plan. New debt assumed a 20-year life between 1% and 3.5% interest depending on funding source and year of financing. Significant new projects includes Westbrook’s share of the \$12M aeration system upgrade at the treatment plant and a potential \$3.2 million CSO Storage Facility.

#### Summary of Projection Impact:

Assessment is projected to increase to \$3,639,157 in 2026, a 15% increase over 2022 Budget, with the most significant cost change related to debt service issued to finance capital projects. Capital reserve balance exceeds target balance. Debt ratio trends are negative but are below or close to target. The use of capital reserve rather than planned bonding may be used to reduce debt service amount.

#### Reserve Fund Balances



#### Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

2018	2019	2020	2021	2022	2023	2024	2025	2026
17%	19%	21%	21%	24%	27%	30%	29%	29%

#### Debt Service Ratio – Target: Greater or Equal to 125%

2018	2019	2020	2021	2022	2023	2024	2025	2026
181%	167%	156%	152%	128%	121%	118%	118%	118%

**Projections for Rate-Making Purposes (continued)****Operating Fund:**

	<u>2020 Actual</u>	<u>2021 Budget</u>	<u>2022 Budget</u>	<u>2023 Forecast</u>	<u>2024 Forecast</u>	<u>2025 Forecast</u>	<u>2026 Forecast</u>
<b>Revenues:</b>							
Assessment Income	2,820,768	2,903,244	3,173,124	3,359,593	3,543,380	3,581,902	3,639,157
Interest Income	80,316	41,216	16,938	16,938	18,632	20,495	20,495
Other Income	51,790	48,000	50,200	50,200	50,200	50,200	50,200
<b>Total Revenues</b>	<b>2,952,874</b>	<b>2,992,460</b>	<b>3,240,262</b>	<b>3,426,731</b>	<b>3,612,212</b>	<b>3,652,597</b>	<b>3,709,852</b>
<b>Operating Expenses:</b>							
Salaries & Wages	209,966	249,744	252,011	259,571	264,762	270,057	275,458
Employee Benefits	91,863	117,373	108,878	119,766	125,754	132,042	138,644
Biosolids Disposal	270,589	319,712	353,873	362,366	368,164	374,055	380,040
Chemicals	152,753	95,321	141,517	145,763	148,678	151,652	154,685
Contracted Services	232,827	141,281	147,268	151,686	154,720	157,814	160,970
Deferred Cost W/O	18,462	0	0	0	0	0	0
Heat/Fuel Oil	33,156	22,469	33,752	34,765	35,460	36,169	36,892
Insurance	6,355	5,709	10,798	11,122	11,344	11,571	11,802
Materials & Supplies	57,651	51,581	51,769	53,322	54,388	55,476	56,586
Other Expense	4,069	9,402	5,440	5,603	5,715	5,829	5,946
Purchased Power	227,291	232,623	251,974	251,974	251,974	251,974	251,974
Regulatory/Taxes	3,627	0	39,145	40,319	41,125	41,948	42,787
Tele/Other Utilities	30,108	25,713	34,504	35,539	36,250	36,975	37,715
Transportation	6,748	13,296	13,298	13,697	13,971	14,250	14,535
SS - Administration	312,996	351,613	365,694	383,064	393,598	404,422	415,544
SS - Engineering Services	58,876	103,417	114,912	120,370	123,680	127,081	130,576
SS - Environmental Services	121,340	116,805	110,453	115,700	118,882	122,151	125,510
SS - Wastewater Services	174,887	198,853	197,656	193,045	198,354	203,809	209,414
SS - Water Services	3,938	7,176	7,412	7,764	7,978	8,197	8,422
	2,017,502	2,062,088	2,240,354	2,305,436	2,354,797	2,405,472	2,457,500
Debt Service	612,360	613,592	779,373	929,718	1,065,838	1,055,548	1,060,775
Renewal & Replacement - Direct	300,000	270,000	168,000	168,000	168,000	168,000	168,000
Renewal & Replace - Indirect	51,384	46,780	52,535	23,577	23,577	23,577	23,577
Capital Finance Expense	963,744	930,372	999,908	1,121,295	1,257,415	1,247,125	1,252,352
<b>Total Operating Expenses</b>	<b>2,981,246</b>	<b>2,992,460</b>	<b>3,240,262</b>	<b>3,426,731</b>	<b>3,612,212</b>	<b>3,652,597</b>	<b>3,709,852</b>
Current Year Surplus(Deficit)	-28,372	0	0	0	0	0	0
Prior Year Surplus	851,256	771,710	638,566	638,566	638,566	638,566	638,566
Accumulated Surplus	822,884	771,710	638,566	638,566	638,566	638,566	638,566
Target Balance(25% of budget)	745,312	748,115	810,066	856,683	903,053	913,149	927,463
Above/(Below)	77,572	23,595	-171,500	-218,117	-264,487	-274,583	-288,897

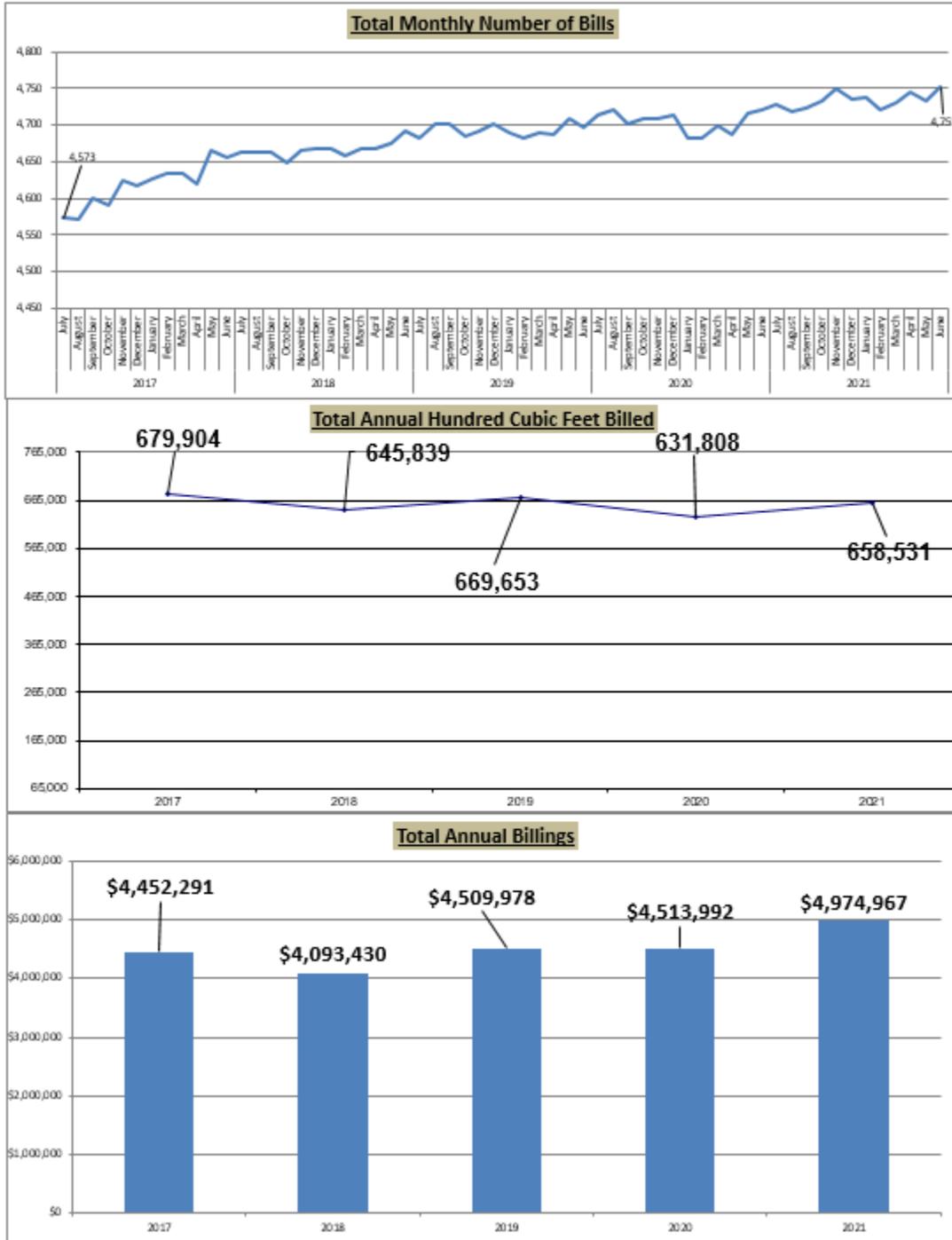
**Capital Expenditures:** (See details in the Capital Expenditure section) Target Balance: \$1,131,000

	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>
	<u>Budget</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>	<u>Forecast</u>
R&R Balance BOY	\$ 3,842,876	\$ 3,890,976	\$ 3,995,686	\$ 3,843,986	\$ 3,875,436
Contribution	\$ 168,000	\$ 168,000	\$ 168,000	\$ 168,000	\$ 168,000
Withdrawals	\$ (119,900)	\$ (63,290)	\$ (319,700)	\$ (136,550)	\$ (103,250)
R&R Balance EOY	\$ 3,890,976	\$ 3,995,686	\$ 3,843,986	\$ 3,875,436	\$ 3,940,186

## Sewer Billing Statistics

The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District’s water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.

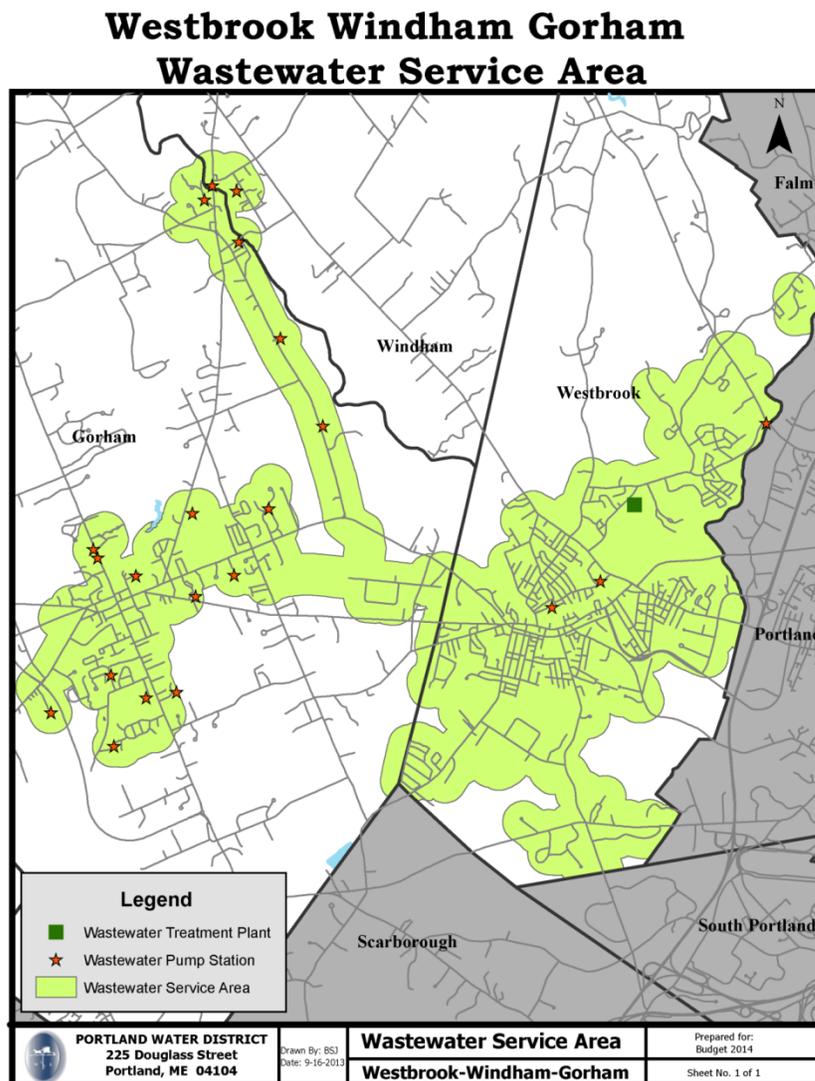
**By Municipal Fiscal Year: Jul 1 to Jun 30**



## Fund: Wastewater – Windham

### Background

The Portland Water District's charter authorizes the District to provide wastewater treatment and collection system-interceptors service to the town. By contract with the town, the District additionally operates and maintains the collectors in the sewer collection system. Windham's wastewater is treated at the treatment facility located in Westbrook and jointly used by Windham, the Town of Gorham and City of Westbrook. Additionally, by contract, the District provides utility billing services.



### **Summary of Services Provided:**

#### **Treatment**

*0.088 Million  
gallons/day*

#### **Collection System**

*2 Windham only & 3  
Joint use Pump Stations  
with 7.9 miles of pipe*

#### **Utility Billing**

*Annual Billings of  
\$361,341 with 56  
Customers.*

## Fund: Wastewater - Windham

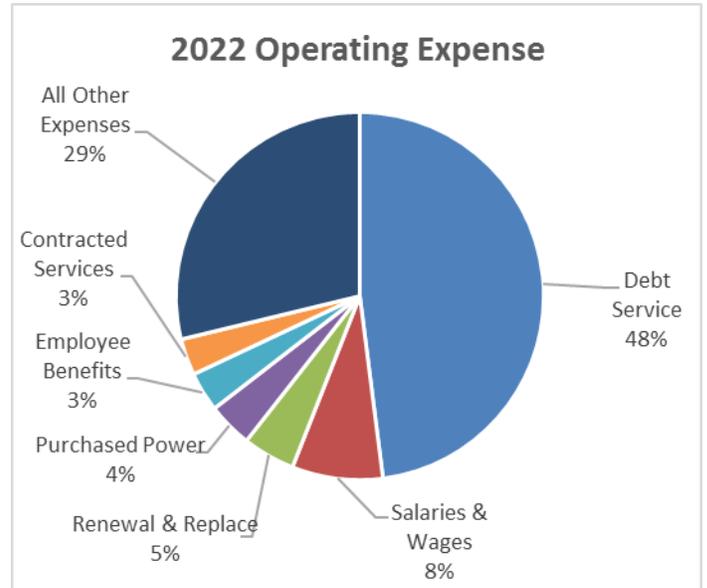
### 2022 Financial Summary

The town’s proposed assessment of \$518,412 is 26.2% increase (\$107,496). That amount is lower than the forecast provided last year to the Town.

The proposed 2022 Operating Expense and Capital budgets are \$519,738 and \$10,093,900, respectively.

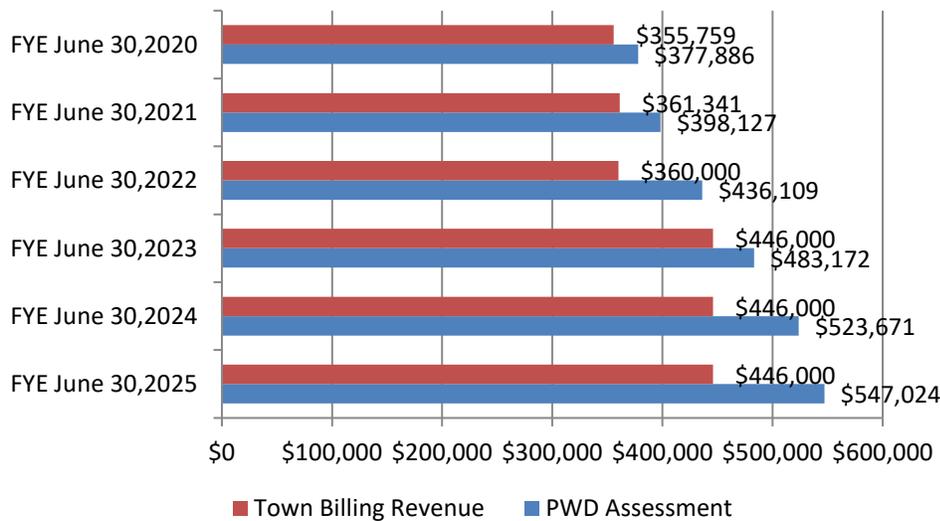
Operating Expense was up 104,817 (25.3%). Debt Service costs, up \$106,467, accounted for the increase.

The treatment/collections system for North Windham was designed in 2021. The 2022 Capital Plan’s main focus is the construction of this system. It is estimated to cost \$10 million. Other projects include a generator install at the Rte. 202 WWPS and improvements at the Westbrook Regional Treatment Facility.



### Assessment Compared to Ratepayers’ Billing

The municipality’s fiscal year end is June 30, while the District’s is December 31. The chart below compares the cash as collected by the District for sewer billings on their behalf and the District’s **South Windham** assessment for services rendered.. Any shortfall of billing revenue is made up from the Town’s general funds.



Revenue Assumptions:	
-	Consumption is the 12 months ending June 30, 2019
-	Rates Assumed:
Effective Date:	Base/Per HCF
April 2009	\$48.84/\$3.24
May 2020	\$48.84/\$7.00
Planned:	
Jul 2022	\$48.84/7.75
Jul 2023	\$48.84/9.77

## 2022 Operating Expense Highlights

**Salaries/Wages** – Wages were budgeted to increase 0.2% (\$101). The small increase was due to the average 2.0% pay rate increase that most mostly offset by a decrease of 44 hours budgeted.

**Employee Benefits** - The benefit rate (including FICA) decreased from 50.59% in 2020 to 46.84% in 2022 due to lower pension expenses. Overall, Employee Benefits expense decreased 7.7% (\$1,498).

**Biosolids Disposal** – Biosolids expense at the Westbrook/Gorham/Windham Regional WWTF is projected to increase 11.3% due to an estimated increase in the disposal cost of 11.1% (from \$90 to \$100.00/wet ton) and a 0.2% estimated increase in volume. The higher unit costs relates to continued regulator and public concern with per- and poly-fluoroalkyl substances (PFAS) with the impact of limiting the available outlets to dispose of biosolids. Biosolids expense for Windham is projected to increase \$1,296 (11.4%). Windham’s share of allocated treatment costs was unchanged at 3.0%.

**Chemicals** – Chemical expense regional treatment plant rose 49.4% due primarily to higher usage for Polymer (60.1%), Sodium Hypochlorite (50.7%) and Sodium Bisulfite (32.5%). The cost of chemicals for Windham’s share of the Little Falls system were down 5.8%. Overall, Windham’s expense increased 8.9% or \$1,134.

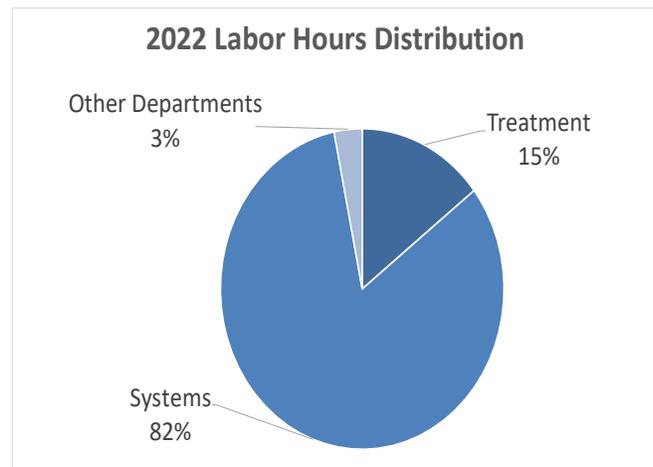
**Materials & Supplies** – This category was up \$4,184 or 75.8%. The increase is related to odor control supplies for area pump stations and reflects the actual costs currently being incurred.

**Purchased Power** – Purchased Power is expected to increase by \$782 (4.0%). Budgeted demand usage went up for joint Westbrook assets. There was also the addition of the Depot Street WWPS. On August 1, 2021 there was a substantial increase to transmission rates, regulated by the Federal Energy Regulatory Commission (FERC). Energy rates for small and medium accounts were reduced by 6%.

**Regulatory/Taxes** – The State of Maine has imposed a \$10.00/wet ton of biosolids regulatory fee to deal with statewide issues regarding PFAS. The impact to this fund is \$1,272 in the 2022 Budget.

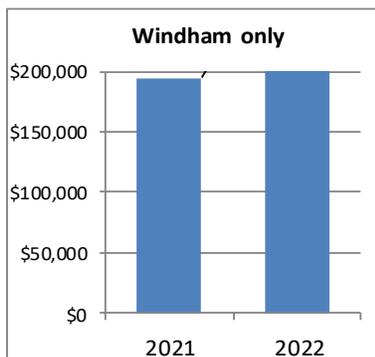
**Support Services** – These costs are related to general work done that cannot be directly charged to a fund as noted above (such as customer billing or information technology) or work done on behalf of several municipalities at the same time (engineering or laboratory services) that is allocated based on the value to each fund. Overall, Support Services increased \$3,989 or 4.6%. Higher costs in Administration and Engineering Services and Wastewater were partially offset by lower costs in Environmental Services and Wastewater.

**Debt Service** - The annual principal and interest payments on bonds issued to finance capital projects. This item increased 74.5% (\$106,467) due to the proposed issuance of new debt for projects at the Westbrook Regional Wastewater Treatment Facility relating to aeration and sludge odor control as well as the Depot Street Wastewater Pump Station and design for the North Windham system.

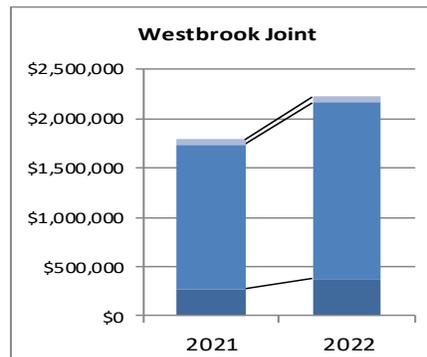


**Renewal & Replacement** - Dollars put aside to fund capital projects. A contribution of \$23,945 will be made in 2022.

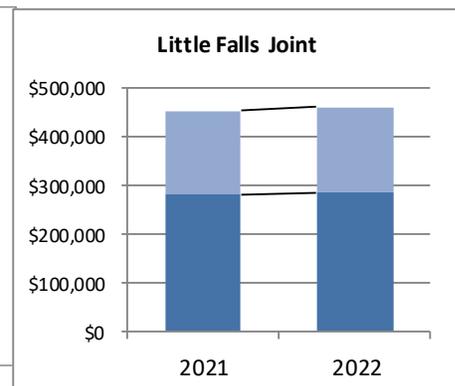
	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$389,004	\$205,458	\$410,916	\$518,412	\$107,496	26.2%
Interest Income	7,238	164	4,005	1,101	-2,904	-72.5%
Other Income	<u>336</u>	<u>67</u>	<u>0</u>	<u>225</u>	<u>225</u>	n/a
Total Revenue	396,578	205,689	414,921	519,738	104,817	25.3%
Salaries & Wages	46,722	27,746	41,439	41,540	101	0.2%
Employee Benefits	20,665	13,579	19,574	18,076	-1,498	-7.7%
Biosolids Disposal	9,664	6,029	11,418	12,714	1,296	11.4%
Chemicals	9,739	6,976	12,812	13,946	1,134	8.9%
Contracted Services	19,140	6,671	15,826	16,698	872	5.5%
Deferred Cost W/O	637	0	0	0	0	n/a
Heat/Fuel Oil	2,057	1,178	2,471	3,772	1,301	52.7%
Insurance	707	435	737	919	182	24.7%
Materials & Supplies	10,143	3,094	5,523	9,707	4,184	75.8%
Other Expense	236	10	189	180	-9	-4.8%
Purchased Power	15,673	7,461	19,722	20,504	782	4.0%
Regulatory/Taxes	130	191	135	1,406	1,271	941.5%
Tele/Other Utilities	589	233	601	764	163	27.1%
Transportation	5,885	4,187	15,003	16,089	1,086	7.2%
SS - Administration	37,134	19,234	40,606	43,048	2,442	6.0%
SS - Engineering Services	8,886	4,252	13,961	16,442	2,481	17.8%
SS - Environmental Services	5,296	2,836	5,486	4,876	-610	-11.1%
SS - Wastewater Services	20,441	12,949	25,808	25,450	-358	-1.4%
<u>SS - Water Services</u>	<u>121</u>	<u>54</u>	<u>219</u>	<u>253</u>	<u>34</u>	<u>15.5%</u>
Operating Expense	213,865	117,115	231,530	246,384	14,854	6.4%
Debt Service & Lease Expense	138,378	67,550	142,942	249,409	106,467	74.5%
Renewal & Replacement - Direct	35,849	17,925	35,849	18,500	-17,349	-48.4%
Renewal & Replace - Indirect	<u>5,277</u>	<u>2,298</u>	<u>4,600</u>	<u>5,445</u>	<u>845</u>	<u>18.4%</u>
Total Expense	393,369	204,888	414,921	519,738	104,817	25.3%
Current Year Surplus (Deficit)	3,209	801	0	0		
Prior Year Surplus	<u>53,837</u>	<u>57,046</u>	<u>56,761</u>	<u>49,808</u>		
Accumulated Surplus	57,046	57,847	56,761	49,808		



**Windham Only** – Expense up \$89.6k (46.0%) due to debt



**Westbrook JT** – Expense up 24.5%; Windham's share of



**Little Falls JT** – Expense up 1.8%, Windham's share of expense was

service for Windham only projects.

expense unchanged (3.0%), expense up \$12.2k.

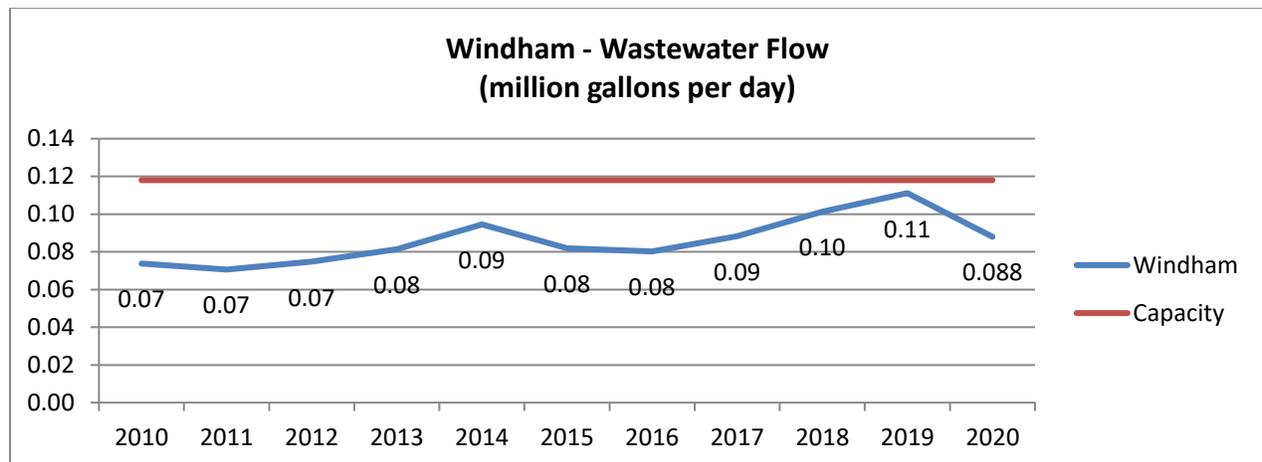
down (77.5% to 73.0%), fund expense up \$3.0k (1.7%).

## Operation Summary

### Wastewater Treatment

Wastewater generated within the Town of Windham, including the Maine Correctional Center and the Little Falls area of Gorham, is conveyed to the Westbrook/Gorham/Windham Regional WWTF. The Town of Windham has reserved 2.6% of a design capacity of 4.54 million gallons a day, or 118,040 gallons. The table below shows the volume of flows to the Westbrook/Gorham/Windham Regional Wastewater Treatment Facility.

Area	2020 Windham Flow	Westbrook WWTF Flow	% Windham Flow
Windham	0.088 mgd	3.04 mgd	2.9%
<b>WGWWTF Capacity</b>	<b>Windham Capacity (2.6%)</b>	<b>% Capacity Used</b>	<b>Capacity Remaining</b>
4,540,000 gal/day	0.118 mgd	0.75 %	0.03 mgd



### Wastewater Conveyance – collectors, interceptors and pumping stations

Parameter	2021 Actual to Sept	2022 Projected
Preventive Work Orders	90	75
Corrective Work Orders	8	5
Wet wells cleaned	9	15
Debris removed (tons)	18.1	10
Dry Weather Overflows	0	0

## Operation Summary (continued)

### 2021 Other Highlights

- Preliminary design of a collection, treatment and effluent disposal system is underway. This major project will involve careful permitting by MEDEP. Design efforts will inform PWD Trustees and the Windham Town Council of the expected project scope and budget for their consideration.
- The Depot St. Pump Station and related sewer work is underway. This will support development in the area.
- The sewer work completed at the Correction Center has dramatically reduced wet weather I/I, as can be seen by the decrease in annual flow from the Windham system.
- Preventive maintenance work continues to be a main focus of system staff.
- Wet well and siphon cleaning were performed on a regular schedule using our Hansen scheduled maintenance program. This effort is in response to odor concerns in the area and the need to regularly clean the siphon to ensure the system operates properly. Staff inspects the siphon weekly.
- The aeration system at the Westbrook/Gorham/Windham Regional WWTF was evaluated in 2015. Several possible approaches to design of the new system were identified and are dependent on future phosphorus permit limits. The loadings to the treatment facility have increased and are creating some operational challenges and additional costs. Construction of the project is underway and will continue for the next couple of years.
- The dewatering polymer system was upgraded and odor control units are being installed in the solids handling areas of the process building to reduce plant odors.
- Recognizing the increased loading at the treatment plant and in anticipation of the aeration system upgrade in 2020, acceptance of septage at the plant has ceased until after the completion of the aeration upgrade. Septage is being accepted at the East End WWTF in Portland.
- The new dewatering system (screw press) at the treatment facility was installed in 2018. Following an extended start-up, the Operations Team has been able to optimize the equipment and performance of the system has increased dramatically. This resulted in decreased costs related to the management of biosolids produced at the treatment plant.

### 2022 Work Plan

- All pump stations will be continuously monitored with our SCADA system and dispatch service. Operations staff will visit each station on a weekly basis.
- Asset Management Software will drive the preventive maintenance program, generating both monthly and annual preventive maintenance work orders.
- Construction of the aeration system at the treatment plant will continue and the plant team will be working to operate the facility through the project.
- A modernization of the treatment plant's locker rooms will be completed to better meet the needs of our changing workforce.
- Wet wells are scheduled for cleaning on a quarterly basis unless experience dictates otherwise.
- An assessment of long-term biosolids management options will be completed in response to contaminants of emerging concern, like PFAS, and instability in the solid waste management systems in Maine have created significant instability. This assessment will help determine future approaches to manage biosolids.
- The North Windham sewer system, treatment plant, and effluent disposal system design effort will continue.

## Capital Summary

A five-year capital plan is updated each year. The projects are prioritized based on operational needs and financing availability. The table below indicates the projects scheduled for the next fiscal year and the funding source of those projects. Detailed descriptions of the projects can be found in the Capital Finance and Capital Expenditures sections.

### Expenditures by CIP Year:

	<u>Prior CIP</u>	<u>2022 CIP</u>	<u>Total</u>
Projects:			
<b>WW Collection &amp; Pumping</b>			
Windham Only Pump Station R&R - 3138		\$ 20,000	\$ 20,000
Rte 202 Pump Station Generator Installation - 3229		\$ 70,000	\$ 70,000
<b>WW Treatment</b>			
<u>Westbrook Treatment Plant</u>			
Aeration & Clarifier Construction - 3023 (prorated)	\$ 208,000		\$ 208,000
Treatment Plant R&R - 3132 (prorated)		\$ 1,300	\$ 1,300
Locker Room Renovation - 3247 (prorated)		\$ 2,600	\$ 2,600
<b>North Windham Treatment System - 3241</b>		\$ 10,000,000	\$ 10,000,000
Total by CIP Year	\$ 208,000	\$ 10,093,900	<b>\$ 10,301,900</b>

### Source of Funds:

	<u>R&amp;R Fund</u>	<u>Bond Issue 2022</u>	<u>Bond Issue &gt; 2022</u>	<u>Funding Total</u>
Beginning Balance	\$ 287,272			
2022 Contribution	\$ 18,500			
Total R&R Balance Available	\$ 305,772			
Projects:				
<b>WW Collection &amp; Pumping</b>	\$ 20,000	\$ 70,000		\$ 90,000
<b>WW Treatment</b>	\$ 3,900	\$ 104,000	\$ 104,000	\$ 211,900
<b>North Windham Treatment System</b>	\$ -	\$ 2,000,000	\$ 8,000,000	\$ 10,000,000
Total	\$ 23,900	\$ 2,174,000	\$ 8,104,000	<b>\$ 10,301,900</b>
Ending Balance	<b>\$ 281,872</b>			

**Prorated Projects:** Costs of projects done on infrastructure used by multiple communities are 'prorated' between the municipalities based on relative design capacity.

### Projections for Rate-Making Purposes

Multi-year projections are made for each of the wastewater funds’ assessment. The projections provide guidance to the wastewater municipalities to assist them in determining their wastewater sewer rates. A summary of the projection is provided on next page.

#### Major Assumptions:

The assumptions incorporated in the projections are as follows:

- Salary increases of 3.0% in 2023 and 2% in other years. No change in number of employees.
- Benefit increases of 10% in 2023 (health insurance increase) and 5% in other years.
- Other expenses increase between 2% and 5% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2022 5-year capital plan. New debt assumed a 20-year life between 1% and 3.5% interest depending on funding source and year of financing. Significant new projects includes Westbrook’s share of the \$12M aeration system upgrade at the treatment plant and a potential \$3.2 million CSO Storage Facility.

#### Summary of Projection Impact:

Assessment is projected to increase to \$1,397,528 in 2026, a 170% increase over 2022 Budget, with the most of the change related to debt service issued to finance and operate the new North Windham (\$832,772 of \$879,111). The projects cause the debt ratios to be worse than target.

#### Reserve Fund Balances



#### Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

2018	2019	2020	2021	2022	2023	2024	2025	2026
35%	38%	35%	34%	48%	55%	66%	55%	54%

#### Debt Service Ratio – Target: Greater or Equal to 125%

2018	2019	2020	2021	2022	2023	2024	2025	2026
96%	119%	129%	128%	110%	111%	107%	105%	105%

**Projections for Rate-Making Purposes (continued)****Operating Fund:**

	<u>2020 Actual</u>	<u>2021 Budget</u>	<u>2022 Budget</u>	<u>2023 Forecast</u>	<u>2024 Forecast</u>	<u>2025 Forecast</u>	<u>2026 Forecast</u>
<b>Revenues:</b>							
Assessment Income	389,004	410,916	518,412	659,969	888,271	1,390,754	1,397,523
Interest Income	7,238	4,005	1,101	1,101	1,211	1,332	1,332
Other Income	336	0	225	225	225	225	225
<b>Total Revenues</b>	<b>396,578</b>	<b>414,921</b>	<b>519,738</b>	<b>661,295</b>	<b>889,707</b>	<b>1,392,311</b>	<b>1,399,080</b>
<b>Operating Expenses:</b>							
Salaries & Wages	46,722	41,439	41,540	42,786	43,642	107,515	109,665
Employee Benefits	20,665	19,574	18,076	19,884	20,878	51,922	54,518
Biosolids Disposal	9,664	11,418	12,714	13,019	13,227	13,439	13,654
Chemicals	9,739	12,812	13,946	14,364	14,651	14,944	15,243
Contracted Services	19,140	15,826	16,698	17,199	17,543	17,894	18,252
Deferred Cost W/O	637	0	0	0	0	0	0
Heat/Fuel Oil	2,057	2,471	3,772	3,885	3,963	4,042	4,123
Insurance	707	737	919	947	966	985	1,005
Materials & Supplies	10,143	5,523	9,707	9,998	10,198	10,402	10,610
Other Expense	236	324	180	185	189	100,193	102,197
Purchased Power	15,673	19,722	20,504	20,504	20,504	20,504	20,504
Regulatory/Taxes	130	0	1,406	1,448	1,477	1,507	1,537
Tele/Other Utilities	589	601	764	787	803	819	835
Transportation	5,885	15,003	16,089	16,572	16,903	17,241	17,586
SS - Administration	37,134	40,606	43,048	45,093	46,333	92,607	95,154
SS - Engineering Services	8,886	13,961	16,442	17,223	17,697	53,184	54,647
SS - Environmental Services	5,296	5,486	4,876	5,108	5,248	11,392	11,705
SS - Wastewater Services	20,441	25,808	25,450	26,607	27,339	65,091	66,881
SS - Water Services	121	219	253	265	272	279	287
	<b>213,865</b>	<b>231,530</b>	<b>246,384</b>	<b>255,874</b>	<b>261,833</b>	<b>583,960</b>	<b>598,403</b>
Debt Service	138,378	142,942	249,409	365,476	587,929	768,406	760,732
Renewal & Replacement - Direct	35,849	35,849	18,500	35,849	35,849	35,849	35,849
Renewal & Replace - Indirect	5,277	4,600	5,445	4,096	4,096	4,096	4,096
Capital Finance Expense	179,504	183,391	273,354	405,421	627,874	808,351	800,677
<b>Total Operating Expenses</b>	<b>393,369</b>	<b>414,921</b>	<b>519,738</b>	<b>661,295</b>	<b>889,707</b>	<b>1,392,311</b>	<b>1,399,080</b>
Current Year Surplus(Deficit)	3,209	0	0	0	0	0	0
Prior Year Surplus	53,837	56,761	49,808	49,808	49,808	49,808	49,808
Accumulated Surplus	57,046	56,761	49,808	49,808	49,808	49,808	49,808
Target Balance(25% of budget)	98,342	103,730	129,935	165,324	222,427	348,078	349,770
Above/(Below)	-41,296	-46,969	-80,127	-115,516	-172,619	-298,270	-299,962

**Capital Expenditures:** (See details in the Capital Expenditure section) Target Balance: \$152,000

	<u>2022 Budget</u>	<u>2023 Forecast</u>	<u>2024 Forecast</u>	<u>2025 Forecast</u>	<u>2026 Forecast</u>
R&R Balance BOY	\$ 287,272	\$ 281,872	\$ 278,682	\$ 265,482	\$ 259,432
Contribution	\$ 18,500	\$ 18,500	\$ 18,500	\$ 18,500	\$ 18,500
Withdrawals	\$ (23,900)	\$ (21,690)	\$ (31,700)	\$ (24,550)	\$ (23,250)
R&R Balance EOY	\$ 281,872	\$ 278,682	\$ 265,482	\$ 259,432	\$ 254,682

## Projections for Rate-Making Purposes (continued)

### Operating Fund: South Windham Only

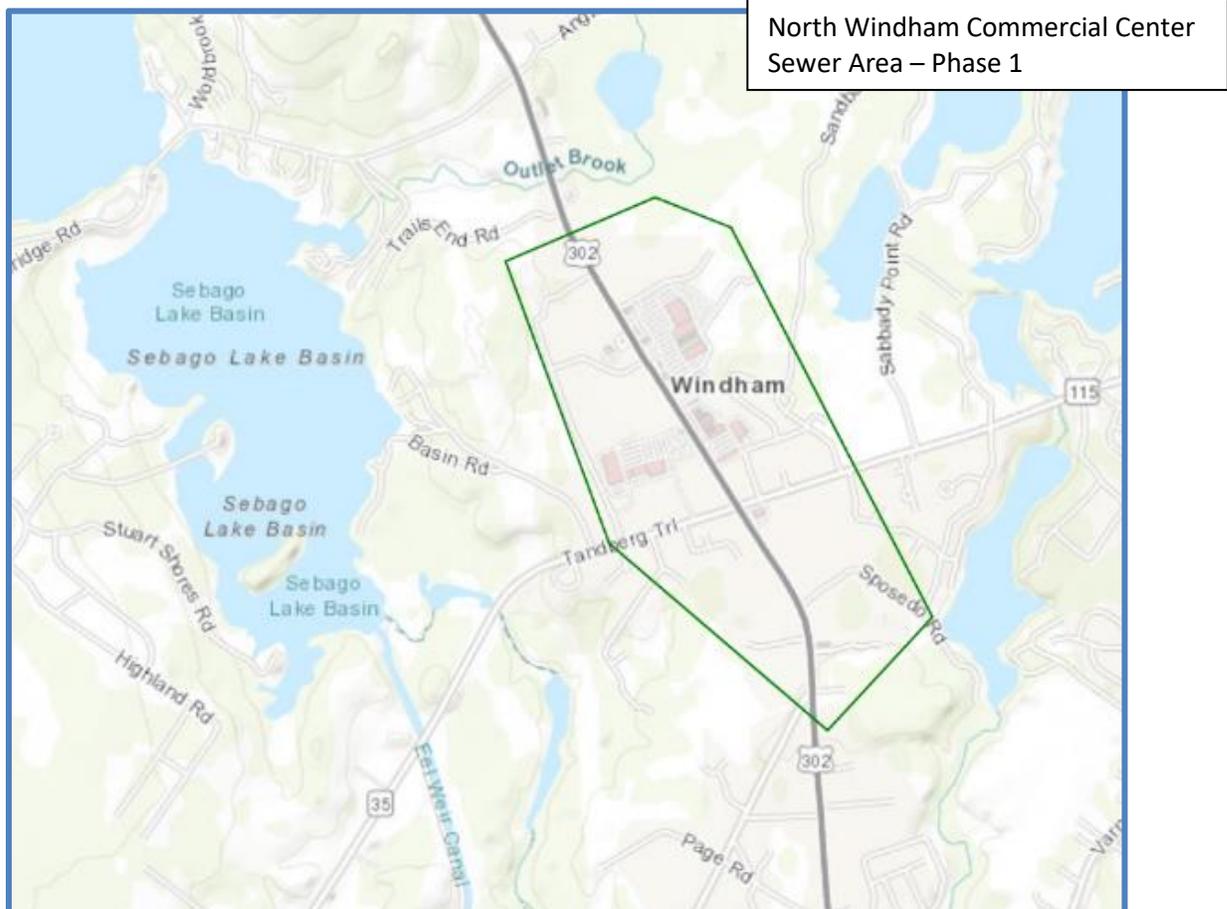
	<u>2020 Actual</u>	<u>2021 Budget</u>	<u>2022 Budget</u>	<u>2023 Forecast</u>	<u>2024 Forecast</u>	<u>2025 Forecast</u>	<u>2026 Forecast</u>
<b>Revenues:</b>							
Assessment Income	389,004	410,916	464,968	501,375	545,966	548,082	551,608
Interest Income	7,238	4,005	1,101	1,101	1,211	1,332	1,332
Other Income	336	0	225	225	225	225	225
<b>Total Revenues</b>	<b>396,578</b>	<b>414,921</b>	<b>466,294</b>	<b>502,701</b>	<b>547,402</b>	<b>549,639</b>	<b>553,165</b>
<b>Operating Expenses:</b>							
Salaries & Wages	46,722	41,439	41,540	42,786	43,642	44,515	45,405
Employee Benefits	20,665	19,574	18,076	19,884	20,878	21,922	23,018
Biosolids Disposal	9,664	11,418	12,714	13,019	13,227	13,439	13,654
Chemicals	9,739	12,812	13,946	14,364	14,651	14,944	15,243
Contracted Services	19,140	15,826	16,698	17,199	17,543	17,894	18,252
Deferred Cost W/O	637	0	0	0	0	0	0
Heat/Fuel Oil	2,057	2,471	3,772	3,885	3,963	4,042	4,123
Insurance	707	737	919	947	966	985	1,005
Materials & Supplies	10,143	5,523	9,707	9,998	10,198	10,402	10,610
Other Expense	236	324	180	185	189	193	197
Purchased Power	15,673	19,722	20,504	20,504	20,504	20,504	20,504
Regulatory/Taxes	130	0	1,406	1,448	1,477	1,507	1,537
Tele/Other Utilities	589	601	764	787	803	819	835
Transportation	5,885	15,003	16,089	16,572	16,903	17,241	17,586
SS - Administration	37,134	40,606	43,048	45,093	46,333	47,607	48,916
SS - Engineering Services	8,886	13,961	16,442	17,223	17,697	18,184	18,684
SS - Environmental Services	5,296	5,486	4,876	5,108	5,248	5,392	5,540
SS - Wastewater Services	20,441	25,808	25,450	26,607	27,339	28,091	28,864
SS - Water Services	121	219	253	265	272	279	287
	213,865	231,530	246,384	255,874	261,833	267,960	274,260
Debt Service	138,378	142,942	195,965	206,882	245,624	241,734	238,960
Renewal & Replacement - Direct	35,849	35,849	18,500	35,849	35,849	35,849	35,849
Renewal & Replace - Indirect	5,277	4,600	5,445	4,096	4,096	4,096	4,096
Capital Finance Expense	179,504	183,391	219,910	246,827	285,569	281,679	278,905
<b>Total Operating Expenses</b>	<b>393,369</b>	<b>414,921</b>	<b>466,294</b>	<b>502,701</b>	<b>547,402</b>	<b>549,639</b>	<b>553,165</b>
Current Year Surplus(Deficit)	3,209	0	0	0	0	0	0
Prior Year Surplus	53,837	56,761	49,808	49,808	49,808	49,808	49,808
Accumulated Surplus	57,046	56,761	49,808	49,808	49,808	49,808	49,808
Target Balance(25% of budget)	98,342	103,730	116,574	125,675	136,851	137,410	138,291
Above/(Below)	-41,296	-46,969	-66,766	-75,867	-87,043	-87,602	-88,483

## Town of Windham – Proposed New Treatment System

In recent years, the Town of Windham has redoubled its efforts to address wastewater treatment needs in the northern area of the Town. These efforts led to the development of a Comprehensive Wastewater Management Plan (CWWMP) published in May 2018. On May 26, 2020, the Town and PWD signed a Memorandum of Agreement to partner on the procurement of engineering services and construction of wastewater treatment facilities in North Windham to serve the “Phase 1 Area” which can be generally described as the commercial center along Route 302 north of River Rd and south of Chaffin Pond.

Per the Memorandum of Agreement, the Town has determined that a wastewater treatment system is needed in the North Windham Area to mitigate groundwater pollution and would allow for more sustainable growth opportunities (North Windham System).

Engineering Services procured to complete a Preliminary Design by the end of the 2021. *The 2018 CWWMP identified a preliminary budget of \$11,000,000; this will be revised pending the completion of the Preliminary Design.*



## Projections for Rate-Making Purposes (continued)

### Operating Fund: North Windham Only

The Town identified the North Windham area as an area needing public sewer. A 2018 Facility Plan estimated it would cost \$10 million to construct such a facility. During 2021, a more detail \$1 million preliminary engineering study is being done. The study is considering a larger service area than originally envisioned and is working on a revised project cost estimate. The project is being considered for a grant through the American Rescue Plan Act, which would reduce the amount financed by bonds.

For the forecast below, the construction cost was assumed to be \$10 million with a total bond of \$11 million issued. For each additional million bonded, debt service and operating cost increases by \$45,000 and \$10,000, respectively, per year. Based on the 2018 Facility Plan, an estimated operating cost of \$316,000 is assumed. **Based on the study's results and ARPA grant, the forecast may significantly change.**

	2021 Budget	2022 Budget	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
<b>Revenues:</b>						
Assessment Income	3,667	53,444	158,594	342,305	862,672	865,916
Interest Income	0	0	0	0	0	0
Other Income	0	0	0	0	0	0
<b>Total Revenues</b>	<b>3,667</b>	<b>53,444</b>	<b>158,594</b>	<b>342,305</b>	<b>862,672</b>	<b>865,916</b>
<b>Operating Expenses:</b>						
Salaries & Wages	0	0	0	0	63,000	64,260
Employee Benefits	0	0	0	0	30,000	31,500
Biosolids Disposal	0	0	0	0	0	0
Chemicals	0	0	0	0	0	0
Contracted Services	0	0	0	0	0	0
Deferred Cost W/O	0	0	0	0	0	0
Heat/Fuel Oil	0	0	0	0	0	0
Insurance	0	0	0	0	0	0
Materials & Supplies	0	0	0	0	0	0
Other Expense	0	0	0	0	100,000	102,000
Purchased Power	0	0	0	0	0	0
Regulatory/Taxes	0	0	0	0	0	0
Tele/Other Utilities	0	0	0	0	0	0
Transportation	0	0	0	0	0	0
SS - Administration	0	0	0	0	45,000	46,238
SS - Engineering Services	0	0	0	0	35,000	35,963
SS - Environmental Services	0	0	0	0	6,000	6,165
SS - Wastewater Services	0	0	0	0	37,000	38,018
SS - Water Services	0	0	0	0	0	0
	0	0	0	0	316,000	324,144
<b>Debt Service</b>	<b>3,667</b>	<b>53,444</b>	<b>158,594</b>	<b>342,305</b>	<b>526,672</b>	<b>521,772</b>
Renewal & Replacement - Direct	0	0	0	0	20,000	20,000
Renewal & Replace - Indirect	0	0	0	0	0	0
Capital Finance Expense	3,667	53,444	158,594	342,305	546,672	541,772
<b>Total Operating Expenses</b>	<b>3,667</b>	<b>53,444</b>	<b>158,594</b>	<b>342,305</b>	<b>862,672</b>	<b>865,916</b>
Current Year Surplus(Deficit)	0	0	0	0	0	0

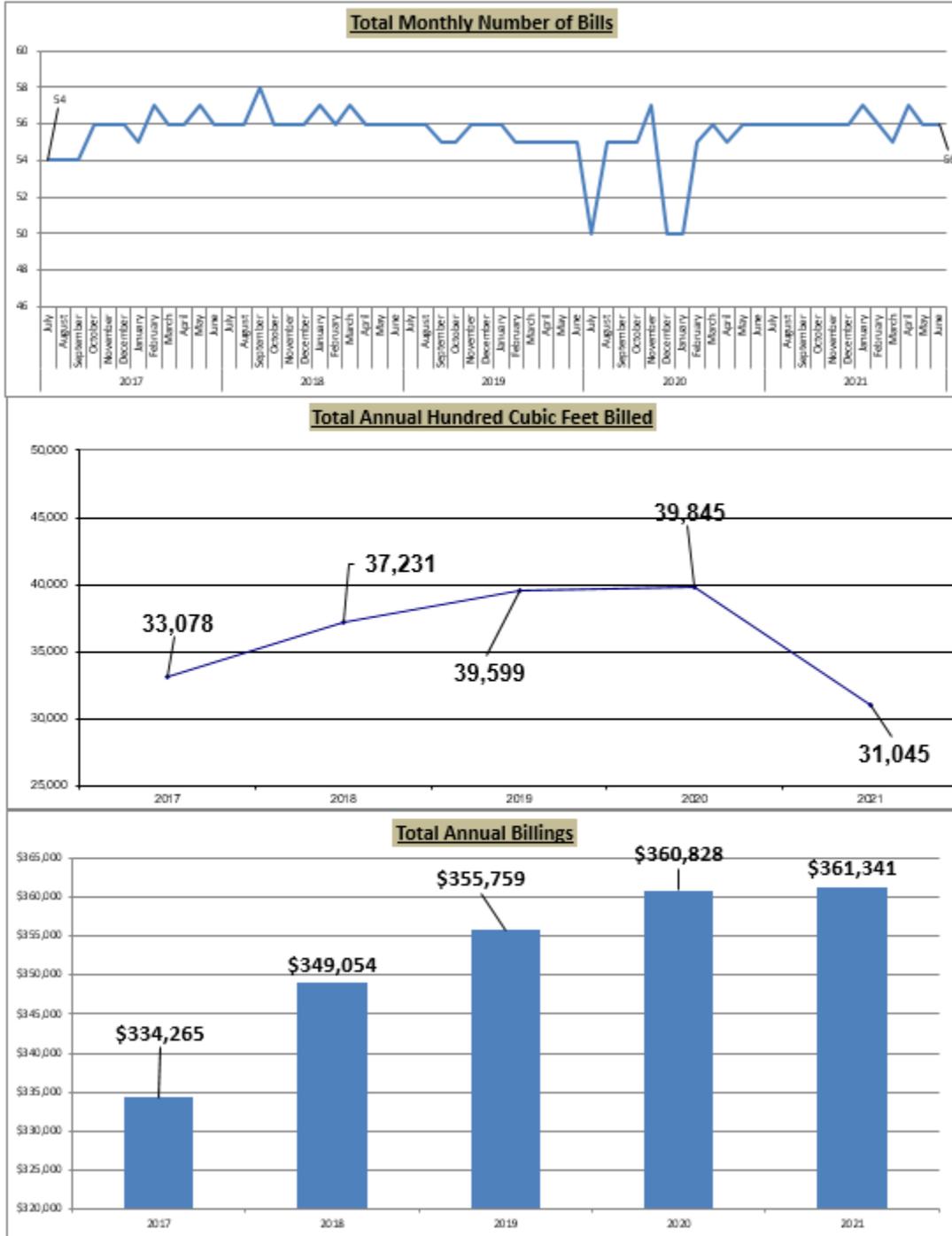
### Debt Service

	2021 Budget	2022 Budget	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
<b>30 Year Bonds:</b>						
\$1 M SRF 1% Bond - 2021	3,667	45,444	45,094	44,744	44,394	44,044
\$2 M SRF 1% Bond - 2022		8,000	101,333	100,283	99,233	98,183
\$4 M SRF 1% Bond - 2023			12,167	181,778	180,378	178,978
\$4 M SRF 1.5% Bond - 2024				15,500	202,667	200,567
	3,667	53,444	158,594	342,305	526,672	521,772

### Sewer Billing Statistics

The District provides sewer billing services for the municipality by contract. Sewer is billed based on water consumption and is included on Portland Water District’s water bill. The municipality determines the sewer rate. Dollars collected are forwarded to the municipality weekly.

**By Municipal Fiscal Year: Jul 1 to Jun 30**



## Falmouth Assessment and Scarborough and South Portland Contracted Services

### Background

By contract, the district provides utility billing and collection services for Falmouth, Scarborough and South Portland. Wastewater services are provided in the towns of Falmouth and Scarborough by their towns' Sanitary District, both independent wastewater utilities, and in the city of South Portland by Water Resource Protection, a department of the City of South Portland. For Scarborough and South Portland, the district estimates the cost to provide the billing and payment collection service as documented in the annual budget and bills the municipalities the estimated cost. The amount is billed to the municipality in equal monthly payments. For Falmouth, in addition to the billing and payment collection service costs, the District will assess the town for debt service costs related to the bond that the District issued on behalf of Falmouth. The debt and the related assets will be part of the District's balance sheet but Falmouth will operate and maintain the assets.

### 2022 Summary

The District is proposing the same assessment as last year, \$314,112 in Falmouth. South Portland's and Scarborough's annual assessment increased by 3.5% and 3.0%, respectively. Debt Service is higher in Falmouth and South Portland reflecting their share of the bond issued to finance the new Cayenta billing system.

#### Falmouth:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Assessment Income	\$314,112	\$157,056	\$314,112	\$314,112	\$0	0.0%
Interest Income	1,625	35	1,000	300	-700	-70.0%
Total Revenue	315,737	157,091	315,112	314,412	-700	-0.2%
Operating Expense	17,851	6,387	17,044	16,049	-995	-5.8%
Debt Service & Lease Expense	292,186	140,166	290,021	293,138	3,117	1.1%
Total Expense	310,037	146,553	307,065	309,187	2,122	0.7%
Current Year Surplus (Deficit)	5,700	10,538	8,047	5,225		
Prior Year Surplus	15,137	20,837	27,209	29,467		
Accumulated Surplus	20,837	31,375	35,256	34,692		

#### Scarborough:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Contracted Billing Income	\$11,328	\$5,832	\$11,664	\$12,072	\$408	3.5%
Interest Income	130	3	0	0	0	n/a
Total Revenue	11,458	5,835	11,664	12,072	408	3.5%
Operating Expense	1,332	606	2,213	2,255	42	1.9%
Debt Service & Lease Expense	4,992	2,580	5,158	5,628	470	9.1%
Renewal & Replace - Indirect	4,489	2,299	4,596	4,641	45	1.0%
Total Expense	10,813	5,485	11,967	12,524	557	4.7%
Current Year Surplus (Deficit)	645	350	-303	-452		
Prior Year Surplus	7,815	8,460	8,756	8,604		
Accumulated Surplus	8,460	8,810	8,453	8,152		

#### South Portland:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Contracted Billing Income	\$201,132	\$100,566	\$201,132	\$208,164	\$7,032	3.5%
Interest Income	2,879	69	1,000	400	-600	-60.0%
Total Revenue	204,011	100,635	202,132	208,564	6,432	3.2%
Operating Expense	138,768	61,031	147,317	141,888	-5,429	-3.7%
Debt Service & Lease Expense	38,738	19,986	39,971	50,879	10,908	27.3%
Renewal & Replace - Indirect	33,454	16,664	33,328	33,480	152	0.5%
Total Expense	210,960	97,681	220,616	226,247	5,631	2.6%
Current Year Surplus (Deficit)	-6,949	2,954	-18,484	-17,683		
Prior Year Surplus	153,618	146,669	53,619	20,073		
Accumulated Surplus	146,669	149,623	35,135	2,390		

## Introduction

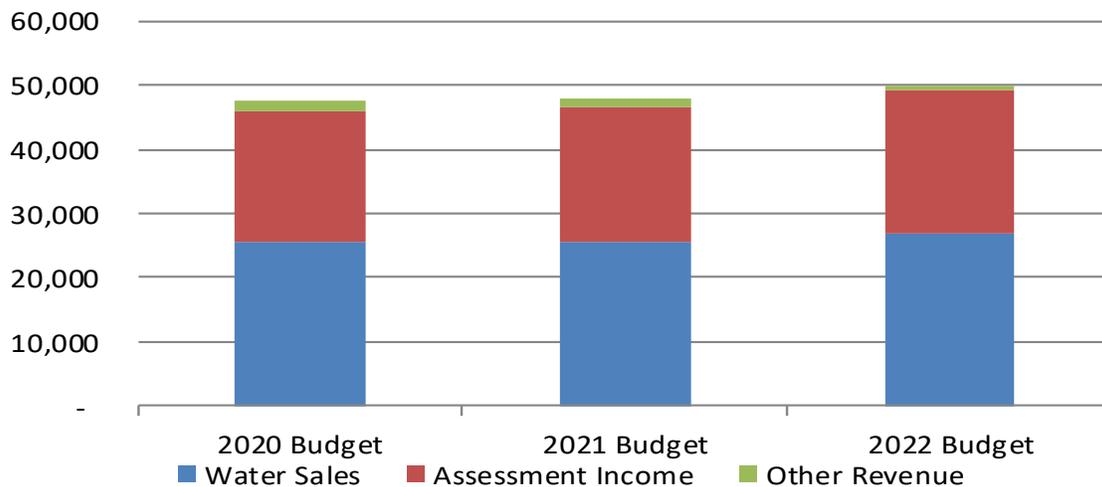
Revenue is obtained from two major sources: payments by individual customers for water services (Water Revenue, 53.4%) and payments from municipalities for wastewater services (Wastewater Assessments, 44.5%). Water revenues in 2022 are projected to increase 4.5% from the 2021 budget. The increase in revenues reflects the impact of a proposed 3.7% rate increase on March 1, 2022 and a 1.9% increase in assumed metered water usage. The Wastewater Assessments for Cape Elizabeth, Cumberland, Gorham, Westbrook, Windham, and Portland increased to cover estimated 2022 costs.

Contracted Billing Income (0.44% of budgeted revenue) is revenue paid by the City of South Portland and Town of Scarborough for wastewater billing services.

Other Water and Wastewater revenue (1.45% of budgeted revenue) is derived from other activities, such as interest income, cross connection fees, leased property, customer connection and activation fees, jobbing surcharge and septage haulers fees, which are further detailed in this section.

	2020 Actual	2021 Actual Jan-Jun	2021 Budget	2022 Budget	\$-Diff.	%-Diff.
Water Sales	\$26,163,382	\$12,347,674	\$25,660,964	\$26,824,845	\$1,163,881	4.5%
Assessment Income	20,218,572	10,541,868	21,083,736	22,346,196	1,262,460	6.0%
Contracted Billing Income	212,460	106,398	212,796	220,236	7,440	3.5%
Interest Income	581,973	21,593	276,655	104,660	(171,995)	-62.2%
Other Income	632,284	346,825	611,542	644,514	32,972	5.4%
Lease Revenue	79,558	-	79,940	81,937	1,997	2.5%
<b>Total Revenues</b>	<b>\$47,888,229</b>	<b>\$23,364,358</b>	<b>\$47,925,633</b>	<b>\$50,222,388</b>	<b>\$2,296,755</b>	<b>4.8%</b>

**Total District Revenue**  
(\$,000)



## Water Sales

Water sales consist of:

- **Metered Revenue** from residential, governmental, industrial and commercial customers. Customers are billed a monthly minimum based on meter size, which includes 1 hundred cubic feet (HCF) of water (748 gallons). For amounts greater than 1 HCF, customers pay based on a four-tier declining block. Member rates effective March 1, 2022 are expected to be :

Monthly Water Usage:		
From	To	Rate
1 HCF	30 HCF	\$2.59
30 HCF	100 HCF	\$2.34
100 HCF	500 HCF	\$2.06
Greater than 500 HCF		\$1.16

- **Public Fire Protection** revenue from charges to municipalities for hydrants. Eleven communities pay a monthly fee based on the number of the hydrants in the community and proportionate share of water system costs to ensure water is available to fight fires.
- **Private Fire Protection** revenue from charges to private users for hydrants and sprinklers. Customers are assessed a monthly fee based on the service line to the hydrant/sprinkler. The fee is based on proportionate share of water system costs to ensure water is available to fight fires.
- **Other Water Revenue** such as interest on delinquent customer balances and customer penalties.

The 2022 Budget of \$26,824,845 reflects an assumed rate of usage determined on subsequent pages with a proposed rate adjustment of 3.7%.

Water Sales rates have been adjusted annually. PWD had plans of a 3.5% increase in May 2020 but due to the global pandemic we delayed the increase to December 2020 for an average of 3.4% to ease financial burden of customers and chose to keep rates stable throughout 2021. Prior to 2016, all water rate adjustments were subject to review and approval by the Maine Public Utilities Commission. Starting in 2016, the District's Board of Trustees can approve rate adjustments solely through their actions. The Board will continue to follow the same public input process before authorizing rate changes.

	2021 Actual		2021 Budget	2022 Budget	\$-Diff.	%Diff.
	2020 Actual	Jan-Jun				
Metered Revenue	\$23,502,337	\$10,952,532	\$22,851,652	\$23,879,387	1,027,735	4.5%
Public Fire Protection	1,463,871	755,994	1,511,988	1,557,358	45,370	3.0%
Private Fire Protection	1,159,717	606,874	1,208,700	1,268,100	59,400	4.9%
Other Water Revenue	37,458	32,274	88,624	120,000	31,376	35.4%
<b>Total Water Sales</b>	<b>\$26,163,383</b>	<b>\$12,347,674</b>	<b>\$25,660,964</b>	<b>\$26,824,845</b>	<b>1,163,881</b>	<b>4.5%</b>

## Water Sales - Cost of Service Study

Every 10 years, a cost of service study is completed that compares the revenue generated by each meter revenue customer class – residential, commercial, industrial and government – as well as fire protection with the costs of providing services to those customers. The most common and widely used cost of service or cost allocation process is presented in the American Water Works Association’s manual of practice M1 – Principles of Water Rates, Fees, and Charges. The process consists of several steps to determine the cost of providing service to various classes of customers.

1. Costs are first assigned to various functions such as supply, treatment, pumping and distribution. The District’s accounting system readily provides this functional breakdown.
2. The functional costs are then allocated to various types of service provided by the water utility or cost components. The most common method is termed the “base-extra capacity method”. Under this method, the functional costs are allocated to the categories:
  - Base: costs that vary with the amount of water use, independent of peak demands
  - Extra Capacity: costs that are associated with meeting peak demand requirements
  - Customer: costs that are related to customer service and independent of water use. These are often subdivided into:
    - a. General or billing costs (meter reading, collection, etc.)
    - b. Meter and service costs (cost of meter or service line repair, maintenance and testing)
  - Direct Fire Protection: costs associated with public fire hydrants
3. Lastly, the costs that have been allocated to cost components are distributed to customer classes or groups based on the relative amount of use that each class has of the various cost components.

In general, we have followed the guidance in the AWWA’s M1 Manual to develop the cost of service analysis for the District.

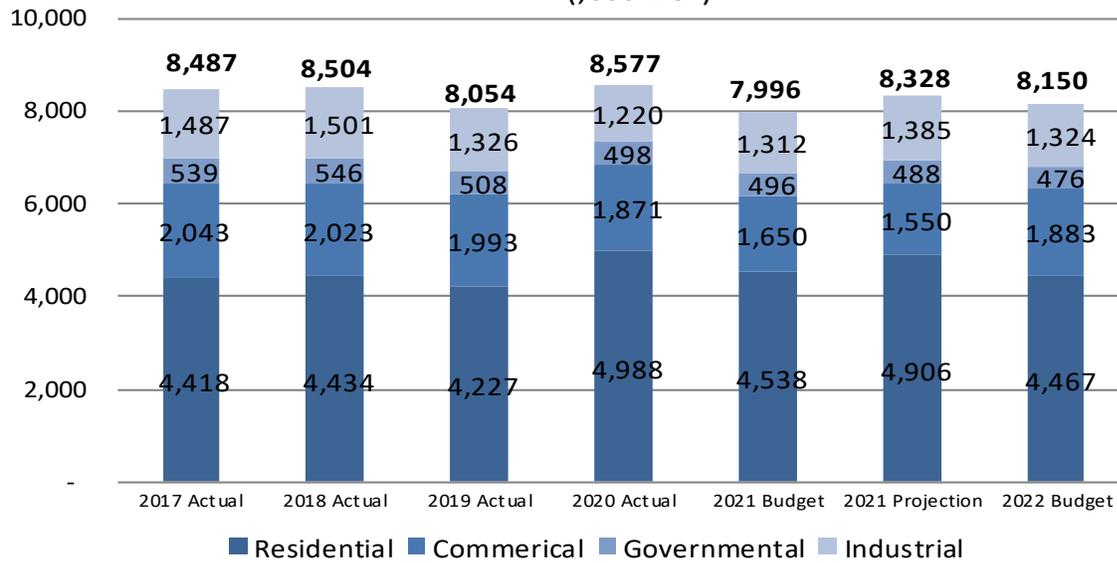
The last study was conducted in 2016. The study indicated that industrial and commercial customers were not paying the full cost of service. Because the rate change needed to those customers would create rate shock and impact economic development, a policy was established to gradually increase the rates impacting those customers over subsequent rate adjustments. The Board confirmed continuing the practice done since 2007 of increasing those rates at a rate of 150% of the rate adjustment for residential customers.

## Water Sales – Metered Revenue

Metered water revenue has risen from \$20.9 million in 2016 to the 2022 budgeted amount of \$23.8 million (9.4% increase). The increase in revenue of the 2022 Budget was a result of a 3.7% rate increase and a 1.9% increase in assumed metered water usage. The District measures metered consumption by four customer classes: Residential, Commercial, Industrial, and Governmental/Public. The consumption patterns of each of these customer classes vary from one another and these variations have been taken into consideration in estimating the consumption used for the budget (see detailed discussion on subsequent pages).

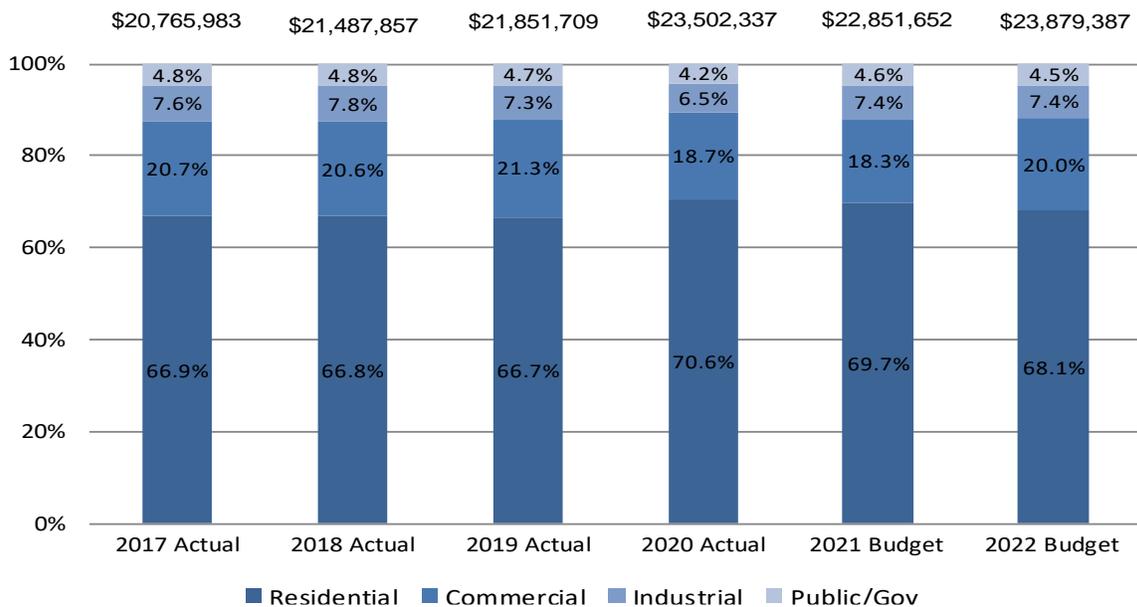
### Historical Consumption vs. 2022 Budget

(,000 HCF)



The ratio of each customer class as a percentage of all sales (shown below) has been fairly stable.

### Metered Water Revenue



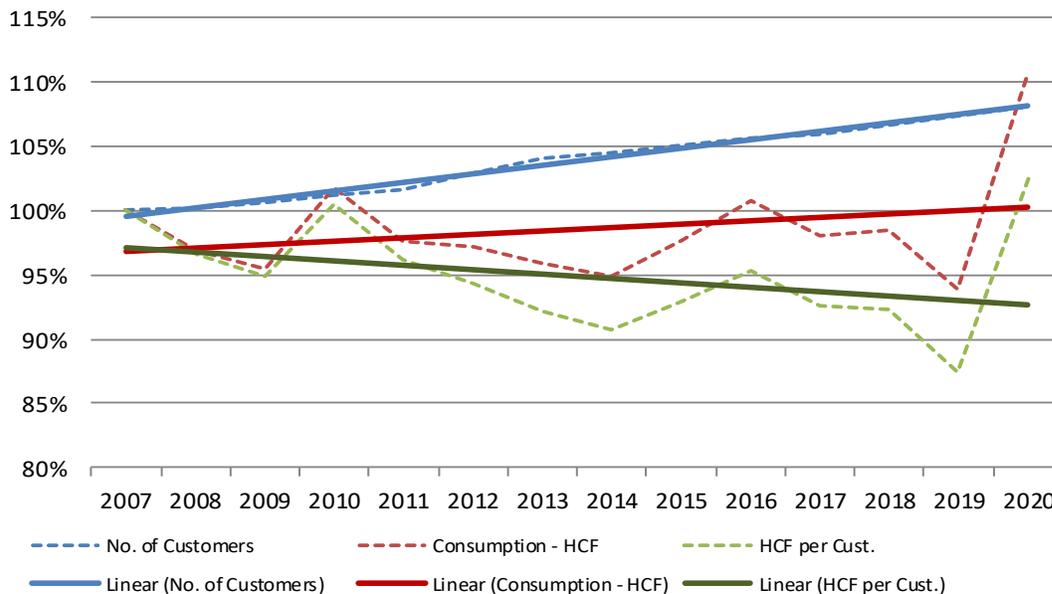
## Water Sales – Metered Revenue - Consumption

### Residential

Residential consumption makes up about 55% of total metered consumption and generates roughly 68% of the District's total metered water revenue. The two segments of residential consumption are monthly billed and seasonal customers. Monthly billed customers receive bills year round on a monthly basis. Seasonal customers receive a bill in the spring for the minimum consumption level and a bill in the fall for any excess usage above the minimum.

For monthly customers, consumption has been calculated by determining the core level of consumption, then estimating the amount of additional usage that largely occurs during the summer months. The monthly core level was reached by taking the average of the lowest three months of each year in the sample data and annualizing that value.

**Residential Customer & Consumption Trends  
2007-2020 (Indexed)**



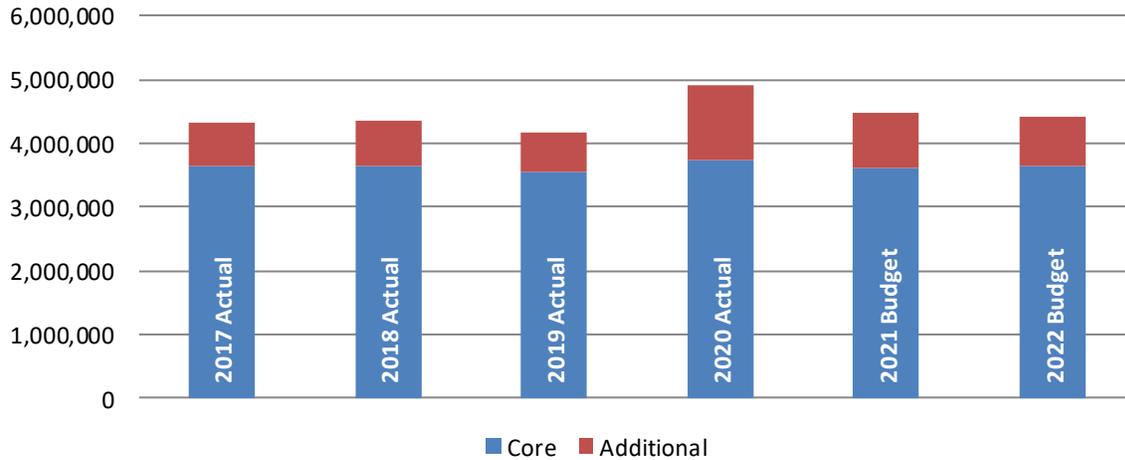
As shown above, overall consumption (red line) has been relatively flat over the last 10 years, even though the number of customers (blue) has been increasing. Therefore, the consumption per customer (green) has also been declining. These trends were taken into account when estimating the residential core usage for 2022.

The additional usage was determined by averaging the percentage of additional consumption over the core in the sample years. For the 2022 budget, the core consumption was approximately 3.6 million HCF (hundred cubic feet) and the additional usage was 21% of the core. This falls in line with historical data.

## Water Sales – Metered Revenue - Consumption

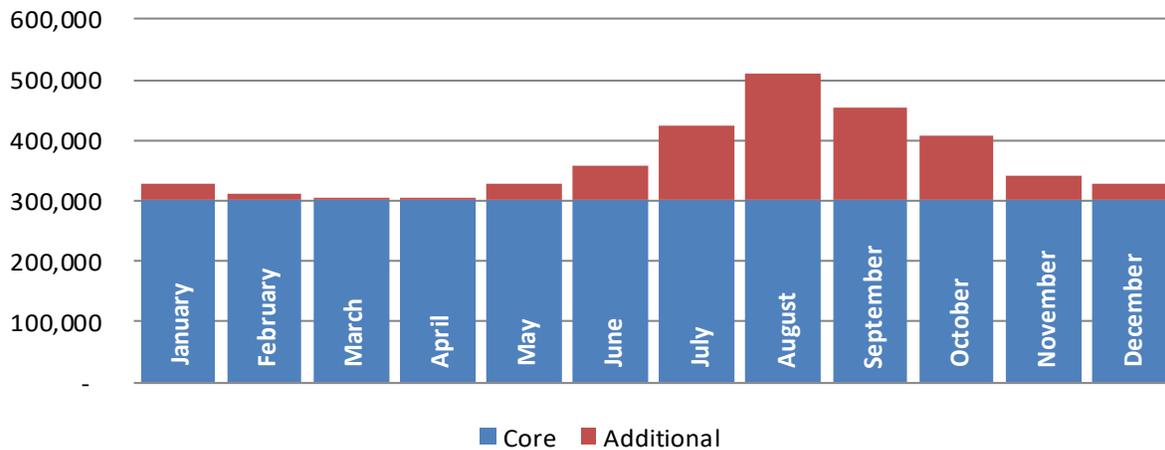
### Residential (continued)

**Residential Consumption - Monthly Customers**  
2017 - Present



The monthly additional consumption was determined based on the average monthly consumption from a rolling three-year period ending December 2020. Approximately three-fourths of the additional consumption is used between the months of June through September.

**Residential Consumption - Monthly Customers**  
2022 Budget (HCF)



Consumption by seasonal customers makes up only 1.47% of total residential consumption. Residential seasonal consumption for the budget was based on mostly 2019 actual results since 2020 was an unusual year and also taken into consideration the three-year average from 2017-2029 and is approximately 65,000 HCF for the year.

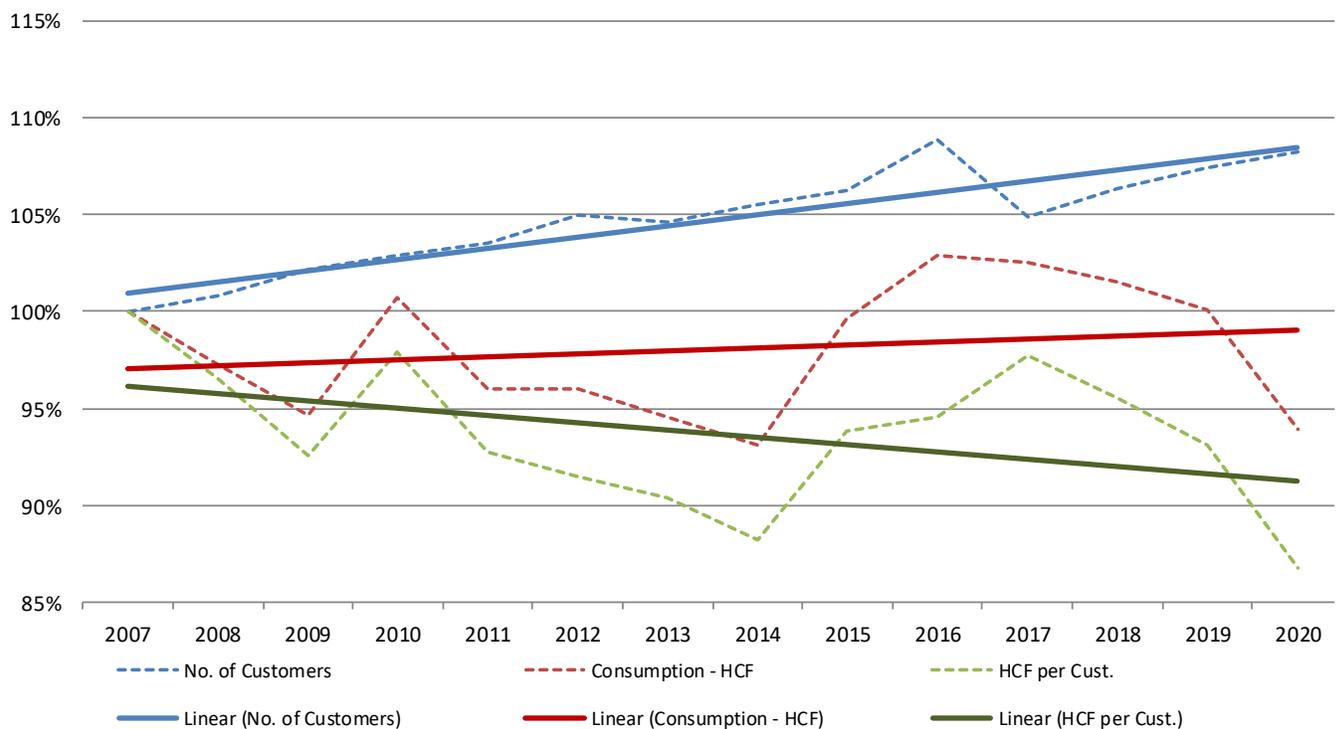
## Water Sales – Metered Revenue - Consumption

### Commercial

In estimating commercial usage, consumption was also split between monthly billed and seasonal customers, similar to the residential class.

In the same manner as residential consumption, monthly customer consumption has been calculated by determining the core level of consumption, then estimating the amount of additional usage. The monthly core level was reached by taking the average of the lowest three months of each year in the sample data and annualizing that value. The rate of increase in commercial customers is slower than residential, and the decrease in consumption per customer is less gradual than residential. The overall consumption took a dip in 2020 due to the pandemic and closings. This was factored into establishing a core usage amount for the commercial class for 2022.

**Commercial Customer & Consumption Trends  
2007-2020 (Indexed)**

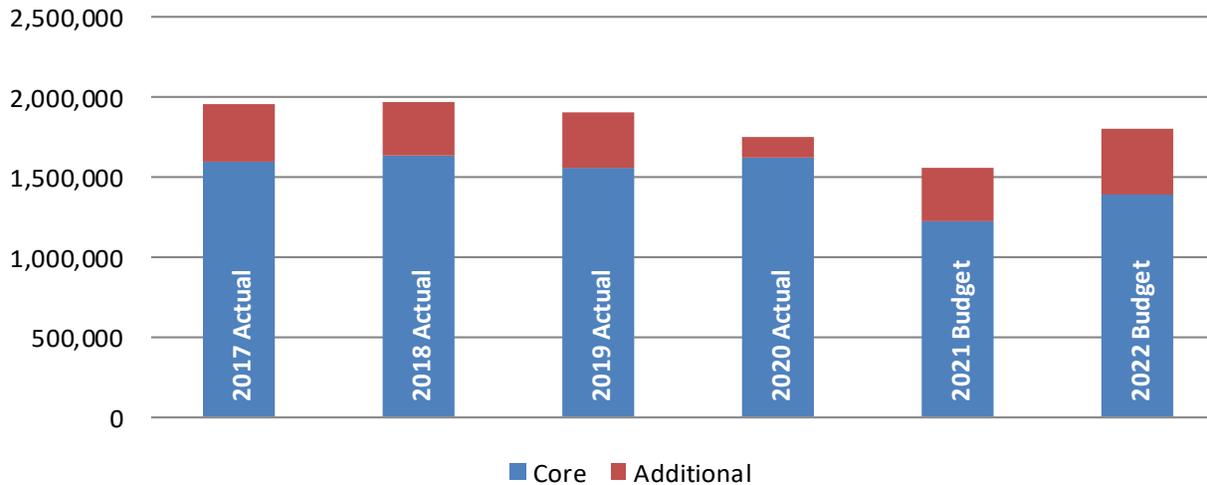


Additional usage was then determined by averaging the percentage of additional consumption over the core in the sample years. For the 2022 budget, the core consumption increased from last year to 1.38 million HCF. The additional usage budgeted for 2022 is 29% of the core.

## Water Sales – Metered Revenue - Consumption

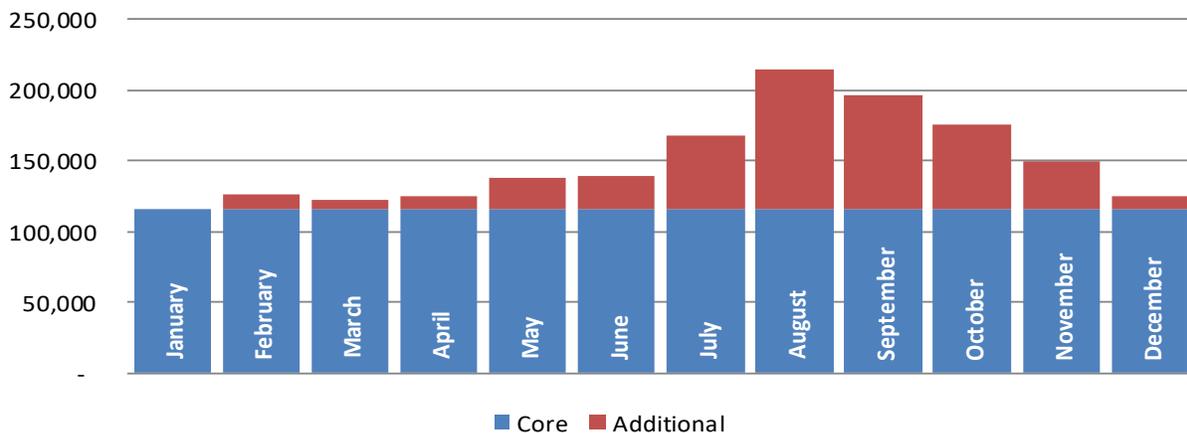
### Commercial (continued)

**Commercial Consumption - Monthly Customers  
2017 - Present**



The monthly additional consumption was determined based on the average monthly consumption from a rolling three-year period ending December 2020. Approximately two-thirds of the additional consumption is used between the months of June through September.

**Commercial Consumption - Monthly Customers  
2022 Budget (HCF)**



Consumption by seasonal customers makes up only 4.5% of total commercial consumption. Commercial seasonal consumption for the budget was based on 2019 actual results since 2020 was an unusual year as well as the three-year period from 2017-2019 and is approximately 85,000 HCF for the year.

## Water Sales – Metered Revenue - Consumption

### Industrial

Historically, approximately 89% of industrial usage has come from just five customers: Calpine, Texas Instruments, Sappi Fine Paper, ON Semiconductor, and B&G Foods. The District makes an effort every year to contact these customers to get an estimate of their expected water needs for the coming year. Overall Industrial usage is budgeted at 1.32 million HCF for 2022.

#### Calpine

The Calpine power plant is the District's largest customer. Located in Westbrook, Calpine uses two combustion turbines routed to two heat recovery steam generators that provide steam to a turbine. This facility produces enough electric power to meet the needs of more than 500,000 homes throughout New England. The energy market can significantly impact production at the plant. In 2018 and 2019, Calpine had some substantial breaks in usage when the plant was offline due to lack of demand and to save on overhead costs. Usage trend for Calpine has been highly variable with no clear trend but we have taken into consideration actual usage in 2021 as of July in which they are projecting to be well above 2021 budget and 2020 actual. We plan to increase the usage by about 100,000 HCF from last years' budget to 447,000 HCF.

#### Texas Instruments

Texas Instruments is a company that designs and makes semiconductors that are sold to electronics designers and manufacturers globally. In 2011, the company bought National Semiconductor, a semiconductor manufacturer specializing in analog devices and subsystems that operates a wafer fabrication plant in South Portland. They have had steady usage in the last few years therefore we are keeping their usage budget the same 300,000 HCF.

#### Sappi Fine Paper

Sappi Fine Paper North America is the leading producer and supplier of coated fine paper, pulp and release paper in the United States. The company has two facilities in Westbrook, a mill and a technology center. The mill is primarily a production facility for specialty release papers and films. The technology center is equipped with two state-of-the-art pilot coaters that enable prototype development for both coated fine papers and specialty release paper. After discussion with employees, they expect 2022 to follow along the lines of 2020 and 2021 budgets and will keep it at 300,000 HCF.

#### ON Semiconductor (formerly Fairchild Semiconductor)

In September 2016, Fairchild Semiconductor was purchased by ON Semiconductor. The company still operates as a lead electronics component manufacturer, making tiny silicon chips used in a variety of industries, including cellular technology, home goods and automotive applications. ON operates a manufacturing facility in South Portland. They have been investing in the plant and expect production to remain the same for at least the next couple of years.

#### B&G Foods

B&G Foods and its subsidiaries manufacture, sell, and distribute a diversified portfolio of high-quality, branded shelf-stable foods across the United States, Canada and Puerto Rico. They own B&M Beans that operates a bean cannery in Portland. Historical usage over the last few years has been consistently in the 75-80 thousand HCF range. The factory will be shutting down and sold to a developer in 2022. The future usage data for this lot is unknown at this time. For 2022 Budget, the estimated usage has been significantly reduced.

## Water Sales – Metered Revenue - Consumption

### Public/Governmental

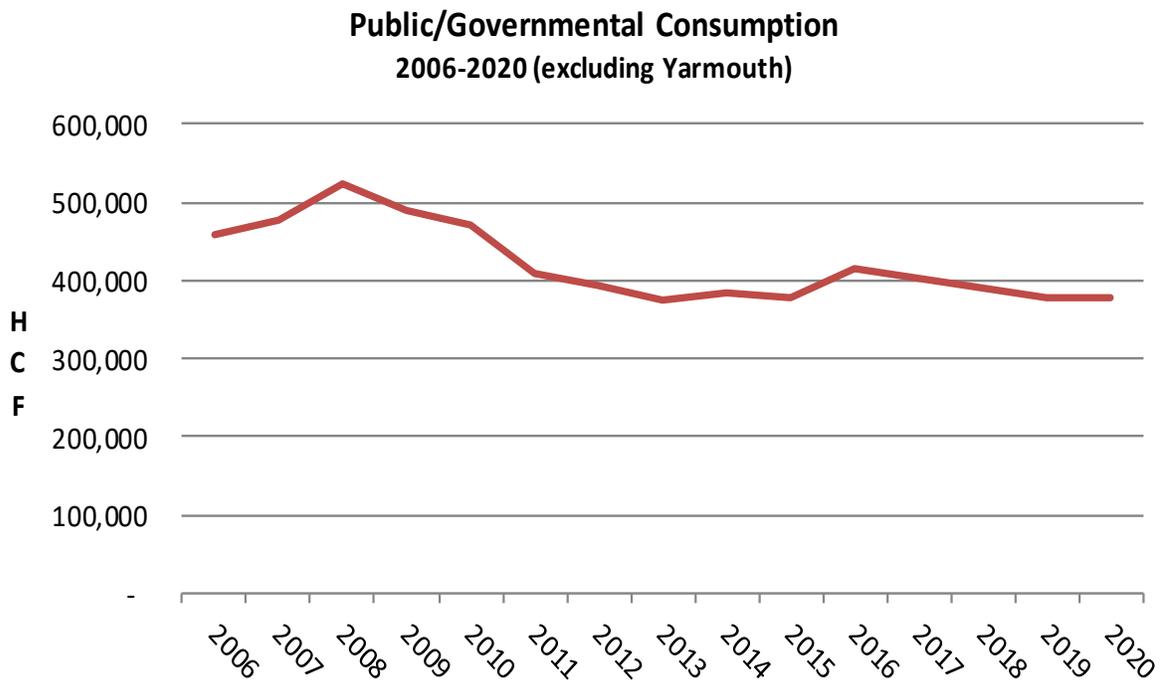
#### Yarmouth Water District

Approximately 24% of public/governmental consumption comes from usage by the Yarmouth Water District that provides water almost entirely to the Wyman Power Plant on Cousins Island. Wyman Power Plant is a spot producer of power for the Northeast and is only used during peak energy demand because, as an oil-fired generator, it has become obsolete.

Wyman ran consistently over the recent years because it supplements with natural gas fired units in New England, which generate roughly half the region's power and are much cheaper to operate. We are creating the budget off a 3 year actual average (2018-2020) as well as heavily considering the projection of 2021 to bring it down from last years' budget of 140,000 hundred cubic feet to 130,000 HCF.

#### Other Public/Governmental Customers

Public/Governmental consumption has been in decline since the economic downturn. Government entities have sought out ways to decrease expenditures including their water and sewer bill. As a result, it is not anticipated that usage will return. In 2022, we have predicted that the usage will continue to fall as it has in the past few years.



## Water Sales – Metered Revenue – Rates

### Water Rate Schedule

A 3.7% increase is proposed to be implemented effective 3/1/2022. Board of Trustees will review and approve any rate adjustment in November 2021.

Meter or Service Line Size	12/1/20 Member Rate	12/1/20 Non-member Rate	3/1/22 Proposed Member Rate	3/1/22 Proposed Non-member Rate
<b>Private Fire Monthly Fee</b>				
2	\$4.04	\$4.64	\$4.19	\$4.81
3	9.04	10.38	9.37	10.75
4	16.12	18.54	16.70	19.21
6	38.53	44.3	39.92	45.89
8	64.51	74.15	66.83	76.82
10	100.76	115.95	104.39	120.12
12	145.09	166.87	150.31	172.88
16	257.94	296.65	267.23	307.33
<b>Minimum Monthly Charges</b>				
5/8	\$10.04	\$11.55	\$10.37	\$11.55
3/4	11.83	1.59	12.22	13.59
1	15.35	17.67	15.86	17.67
1 1/2	27.27	31.36	28.17	31.36
2	39.29	45.16	41.23	45.16
3	71.29	81.95	74.82	81.95
4	107.31	123.39	112.62	123.39
6	207.33	238.42	217.59	238.42
8	327.34	376.45	343.54	376.45
10	473.96	545.06	497.42	545.06
12	627.41	721.50	658.47	721.50
Low income	2.51	2.89	2.59	2.99
<b>Monthly Volume Charge</b>				
First 100 Cf	minimum	minimum	minimum	minimum
Next 2,900 Cf	\$2.51	\$2.89	\$2.59	\$2.99
Next 7,000 Cf	2.23	2.57	2.34	2.70
Next 40,000 Cf	1.96	2.25	2.06	2.36
Over 50,000 Cf	1.11	1.28	1.16	1.34

Typical Customer Increases		Current	Proposed 3.7%	\$	%
Residential (per month)	.62" meter, 7 HCF	\$25.10	\$25.91	\$0.81	3.23%
Commercial (per month)	.75" meter, 80 HCF	196.12	204.33	8.21	4.19%
Small Industrial (per month)	2" meter, 1,300 HCF	1,940.18	2,032.14	\$91.96	4.74%
Large Industrial (per month)	8" meter, 56,000 HCF	62,945.23	65,786.45	2,841.22	4.51%
Sprinkler (per year)	6" meter	462.36	479.04	\$16.68	3.61%
Public Fire (per year)		1,511,988	1,566,432	54,444	3.60%
Seasonal (per year)	.62" meter	242.78	251.52	\$8.74	3.60%

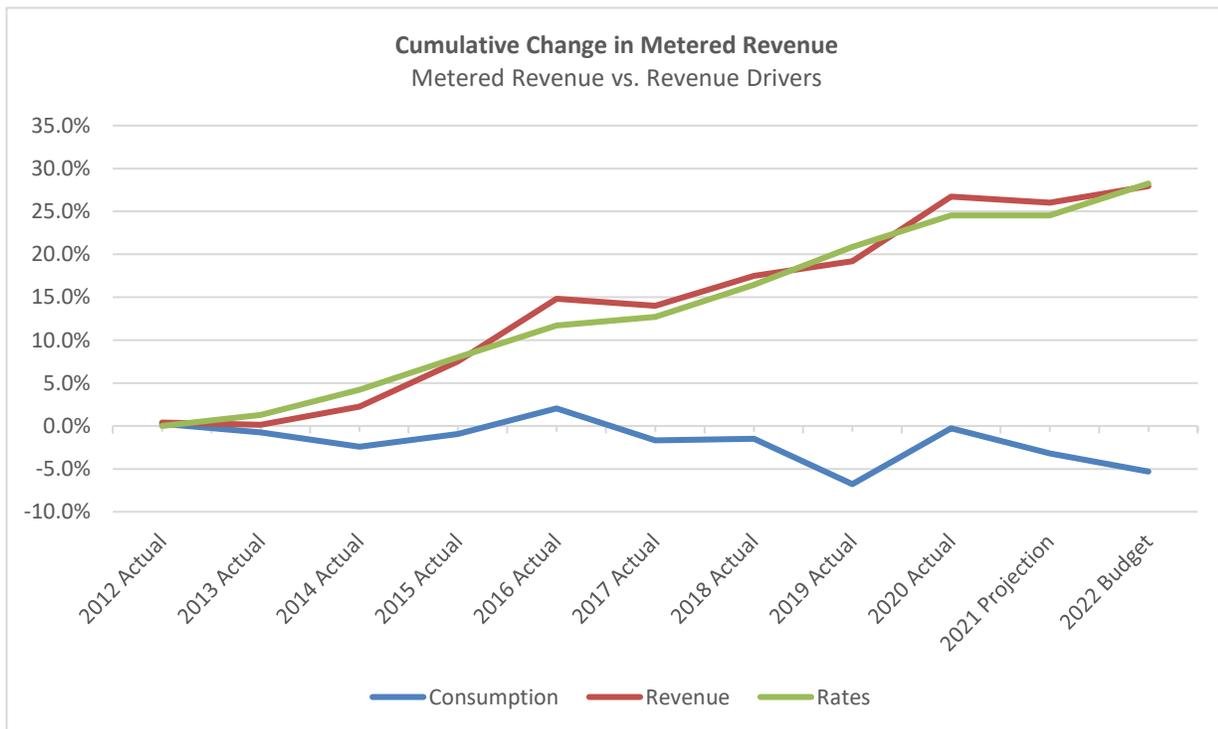
## Water Sales – Metered Revenue - Rates

### Water Rate Schedule (continue)

Water rates were unchanged from 2002 through 2006. Rate changes since that time were:

<u>Effective Date</u>	<u>Metered Rates</u>	<u>Public Fire Projection Rates</u>
01/01/07	3.5% increase	11.0% increase
01/01/08	3.8% increase	unchanged
01/01/09	7.0% increase	3.0% increase
05/01/10	3.6% increase	3.5% increase
05/01/11	2.0% increase	2.0% increase
05/01/13	1.3% increase	1.5% increase
05/01/14	2.9% increase	3.0% increase
05/01/15	3.8% increase	3.8% increase
05/01/16	3.7% increase	3.7% increase
05/01/17	1.0% increase	1.0% increase
05/01/18	3.8% increase	3.75% increase
05/01/19	4.4% increase	4.36% increase
12/01/20	3.4% increase	3.4% increase
03/01/22	3.7% increase	3.6% increase

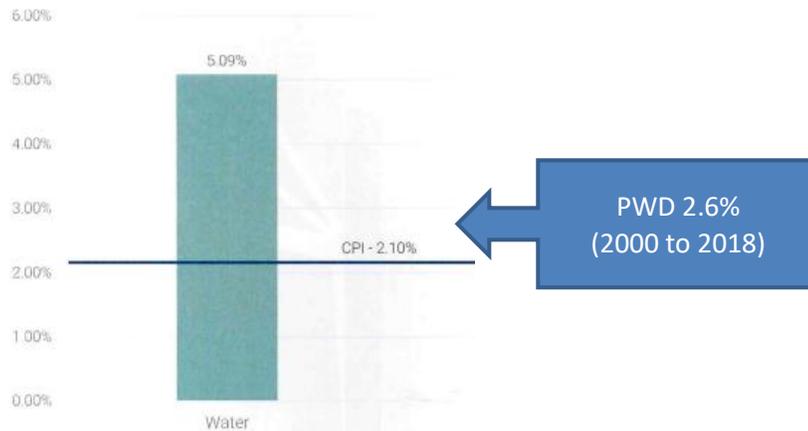
Changes in metered revenue are strongly correlated to changes in rates. There is also a relationship between metered revenue growth and changes in consumption. The graph below reflects this correlation. The revenue line runs closely to rates, while changes in its slope correspond to changes in consumption. The 2.3% increase in water revenue from 2021 Projection to 2022 Budget was a result of 3.7% increase in metered rates.



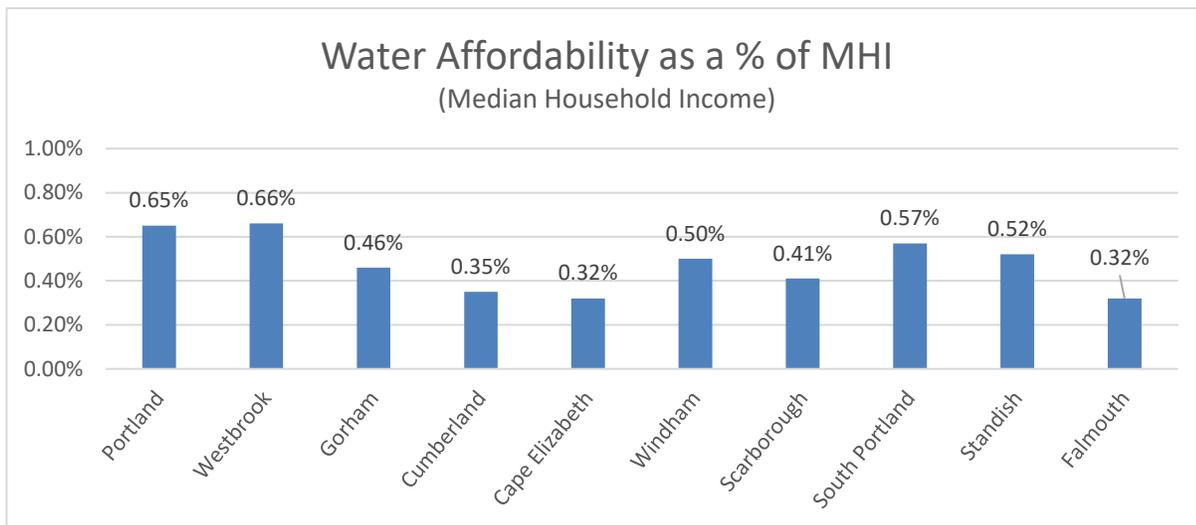
## Water Sales – Rate Affordability Study

Though average water rate adjustments since 2004 increased close to the rate of change in the consumer price index (CPI), the past 5 years rate adjustments have exceeded CPI (3.2% vs 1.7%) and the 5-year financial forecast indicates an average annual rate adjustment of 5.0% - closer to the national average increase. Higher rate adjustments are needed to fund necessary replacements and upgrade to water infrastructure. As the chart indicates below, Portland Water District’s rate adjustments have been lower than other water utilities since 2004 despite significantly investing in our infrastructure. The operational efficiencies that enabled the lower rate adjustments will not be available in future years and rates adjustments will trend closer to the industry average.

Annualized Rate Increases from 2004 to 2018  
(AWWA/Raftelis – 2019 Water and Wastewater Rate Survey)



With residential rates increasing, a study was conducted to understand the financial burden water rates are having on our customers. An industry benchmark compares a typical bill with the average usage for a month in a household of 4 to the median household income (MHI). From many studies and our purposes, a factor of 2% and under MHI is considered affordable.



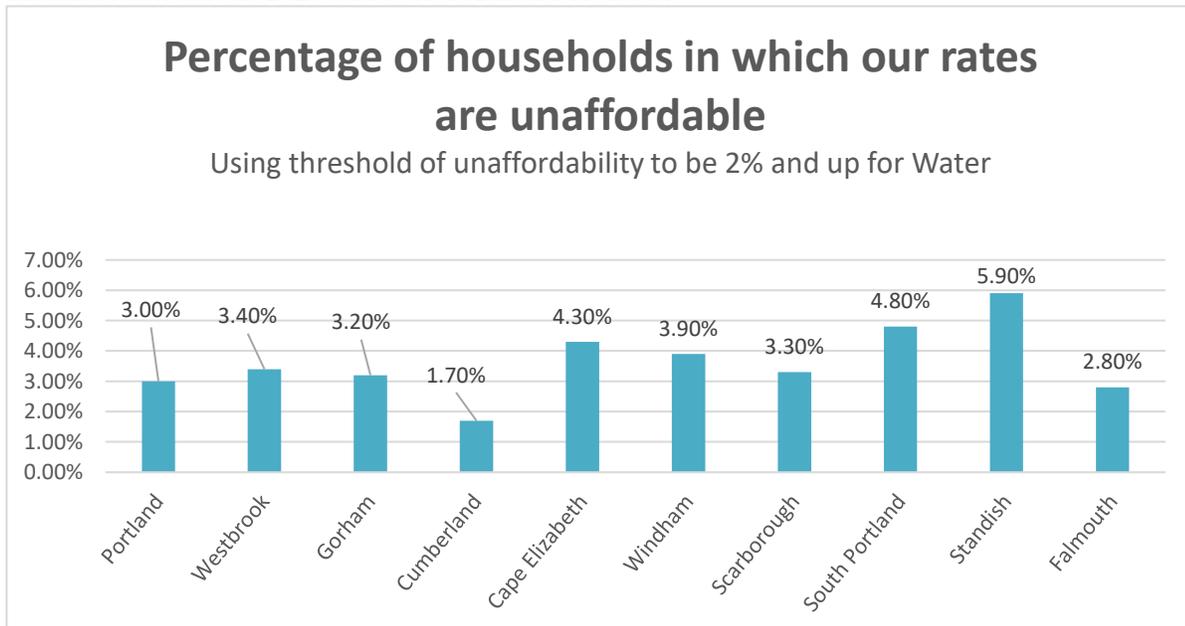
## Water Sales – Rate Affordability Study (continued)

The table below indicates most customer’s water bills are affordable (below 2% of MHI) with only customers in the lowest income and larger households reaching unaffordable levels (orange and red colors).

### Water

Household Income	Value	Annual Bill as Percentage of Household Income by Household Size									
		HCF	2	5	7	10	12	14	17	19	22
		Household Size	1	2	3	4	5	6	7	8	9
20th Percentile	\$ 17,100		0.88%	1.41%	1.76%	2.29%	2.64%	3.00%	3.52%	3.88%	4.40%
40th Percentile	\$ 37,200		0.41%	0.65%	0.81%	1.05%	1.21%	1.38%	1.62%	1.78%	2.02%
Median	\$ 48,300		0.31%	0.50%	0.62%	0.81%	0.94%	1.06%	1.25%	1.37%	1.56%
60th Percentile	\$ 61,000		0.25%	0.40%	0.49%	0.64%	0.74%	0.84%	0.99%	1.09%	1.23%
80th Percentile	\$ 99,400		0.15%	0.24%	0.30%	0.39%	0.45%	0.52%	0.61%	0.67%	0.76%

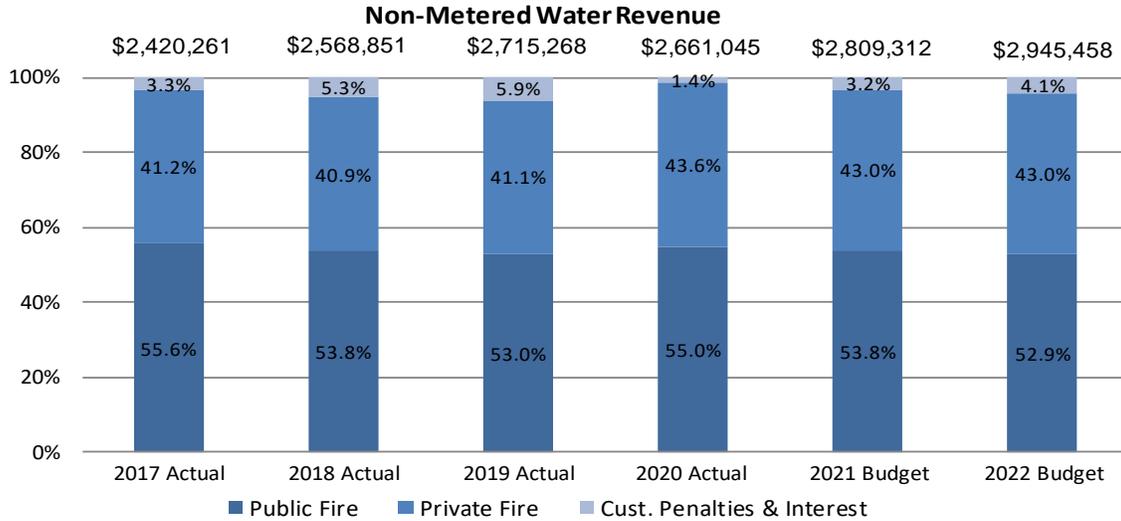
Using an alternative tool (Affordability Assessment Tool created by the University of North Carolina), an estimated number of households having unaffordable water bills was calculated. The tool uses information from the 2019 U.S. Census Bureau Website.



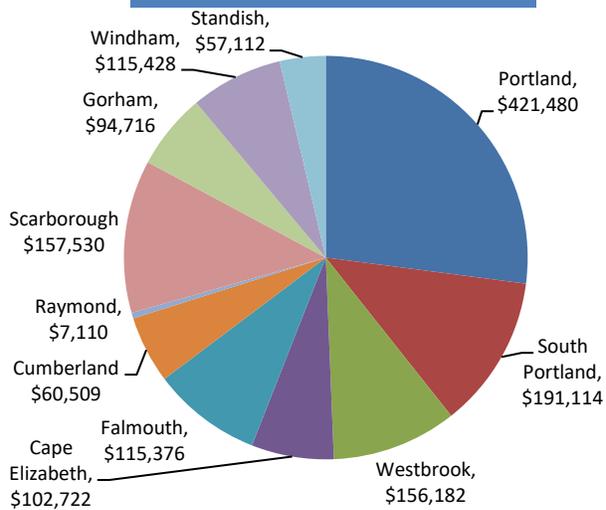
To assist low-income households, the District offers 2 different programs. Qualifying households are given a \$8 discount on each month’s bill. Customers can also participate in the ‘conservation program’ that provides and installs low flow devices to reduce the customer water consumption and ultimately their bill.

## Water Sales – Non-Metered Revenue

Non-metered water revenue has risen from \$2.4 million in 2017 to the budgeted amount of \$2.9 million (21.7%) for 2022.



### Public Fire Protection Revenue



Allocated based on number of hydrants and inch feet of mains in each municipality.

### Private Fire Protection Revenue

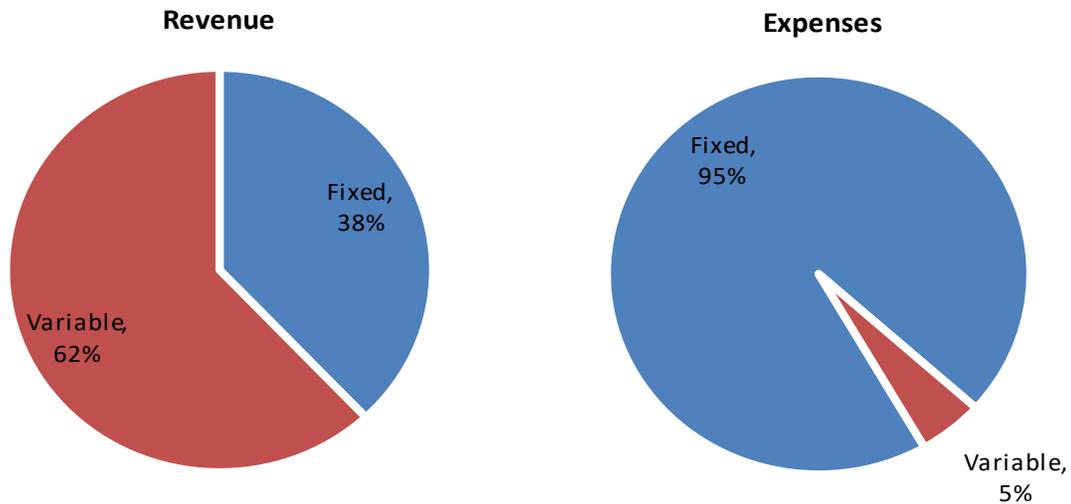
Service Line Size (inches)	Annual Fee	Number of Customers
2	\$ 50.28	361
3	\$ 112.44	0
4	\$ 200.40	246
6	\$ 479.04	1278
8	\$ 801.96	617
10	\$ 1,252.68	37
12	\$ 1,803.72	22
16	\$ 3,206.76	1

Allocated between service line sizes based on the relative demand on the water system.

## Water Sales - Long-Term Considerations

### Revenue & Expense: Fixed vs. Variable

As shown below, approximately 38% of the District's water revenue is fixed, generated from minimum charges on metered accounts and fire protection charges. The remaining 62% varies depending on consumption levels. In comparison, 95% of the District's expenses are fixed, largely infrastructure costs.



### Slow Customer Growth

Population growth in the District's service area is lower than in other parts of the country and is not expected to increase much. Customers in 2020 total versus 2019 had been increased by an average of 0.74% due to Residential increasing by 372 and Commercial customers increased by 16 accounts.

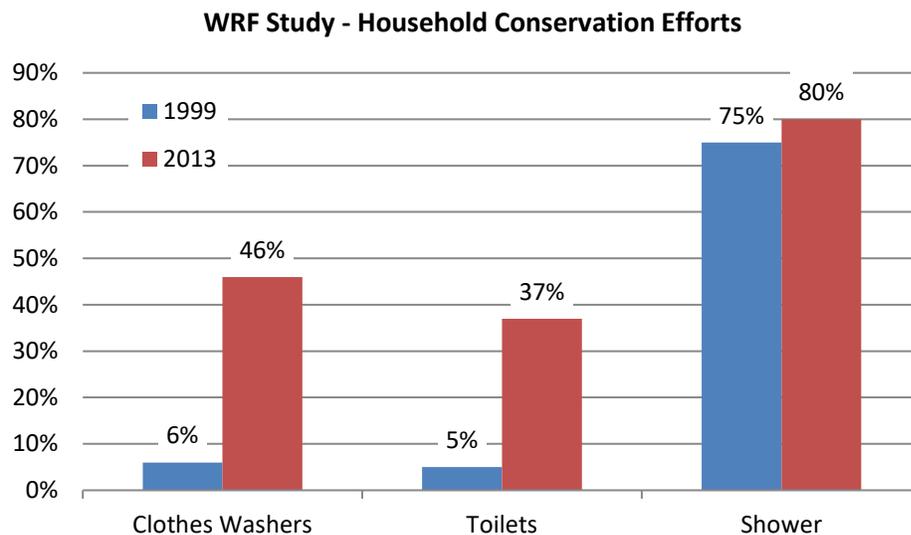
### Cost of Service Gap

The last Cost of Service Study was completed in 2016. The study indicated that industrial/commercial customers generate less revenue than it costs to serve them. The Board requested the gap be closed over future rate adjustments by increasing revenue generated by industrial/commercial customers at higher increments. The proposed rate schedule will continue to have greater impact on larger customers by a factor of 150% compared to smaller ones.

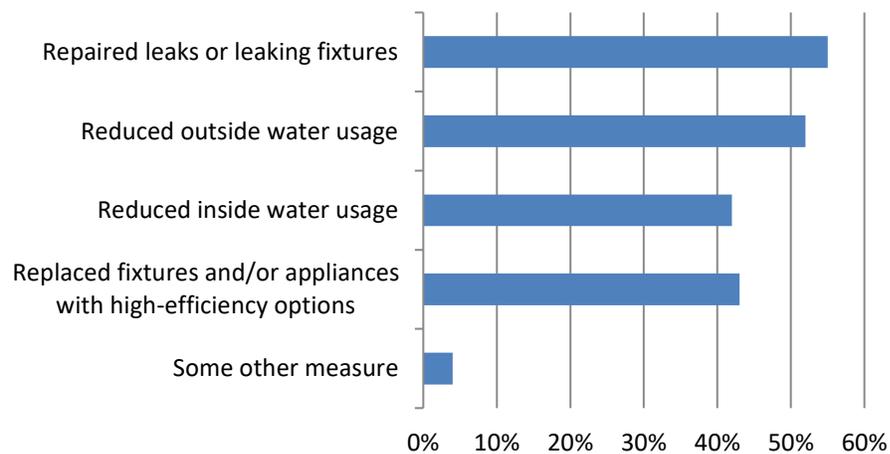
## Water Sales - Long-Term Considerations (continued)

### Decline in Consumption

There has been a nationwide trend in recent years toward lower consumption levels. This trend also appears in the District's consumption data. Some factors contributing to this decline are more efficient appliances and fixtures, increasing water/ sewer rates, and a decrease in average household size. A recent Water Resources Foundation Study found a significant increase in households using more water efficient fixtures and appliances.



On a recent survey the District's customers were asked, "In the past year, have you taken any of the following measures to reduce your water usage?" The graph below shows customers' responses to that question:



## Wastewater Assessment & Contracted Billing Income

Wastewater Assessments are amounts payable by each municipality for wastewater services provided by the District. The assessments cover the operating and debt service costs of operating wastewater facilities maintained by the District. The assessments are billed in monthly installments. In 2022, the assessments for each municipality were increased excluding Falmouth (see table below).

### Wastewater Assessments

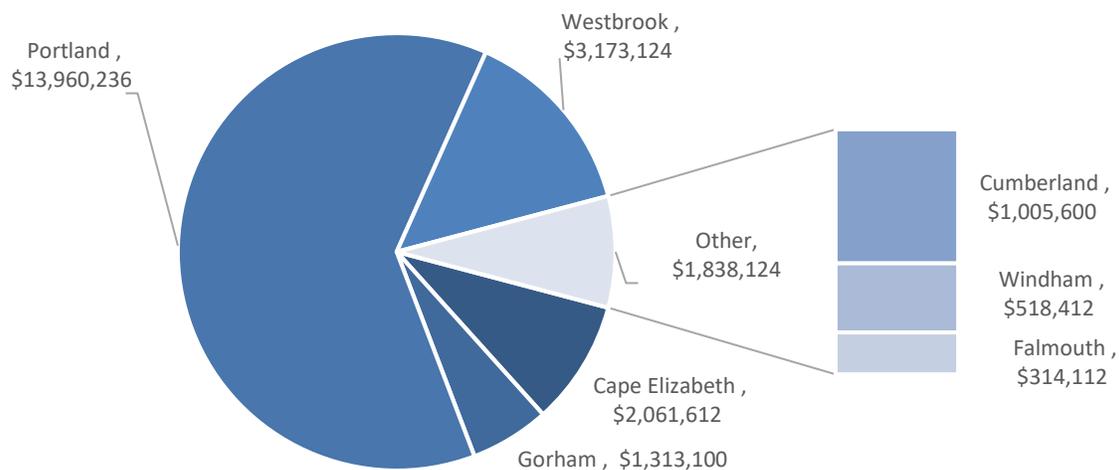
	2021 Actual		2021 Budget	2022 Budget	-\$-Diff.	%Diff.
	2020 Actual	Jan-Jun				
Cape Elizabeth	1,705,380	917,706	1,835,412	2,061,612	226,200	12.3%
Cumberland	965,292	494,634	989,268	1,005,600	16,332	1.7%
Falmouth	314,112	157,056	314,112	314,112	-	0.0%
Gorham	1,160,676	594,420	1,188,840	1,313,100	124,260	10.5%
Portland	12,863,340	6,720,972	13,441,944	13,960,236	518,292	3.9%
Westbrook	2,820,768	1,451,622	2,903,244	3,173,124	269,880	9.3%
Windham	389,004	205,458	410,916	518,412	107,496	26.2%
	\$20,218,572	\$10,541,868	\$21,083,736	\$22,346,196	\$ 1,262,460	6.0%

Contracted Billing Income is revenue paid by municipalities for wastewater billing services provided. Scarborough and South Portland operate and maintain their own wastewater collection and treatment systems. The District only provides billing-related services for those communities.

### Contracted Billing Income

	2021 Actual		2021 Budget	2022 Budget	-\$-Diff.	%Diff.
	2020 Actual	Jan-Jun				
Scarborough	11,628	5,832	11,664	12,072	408	3.5%
South Portland	201,132	100,566	201,132	208,164	7,032	3.5%
	\$212,760	\$106,398	\$212,796	\$220,236	\$ 7,440	3.5%

Wastewater Assessments  
(Dollars)



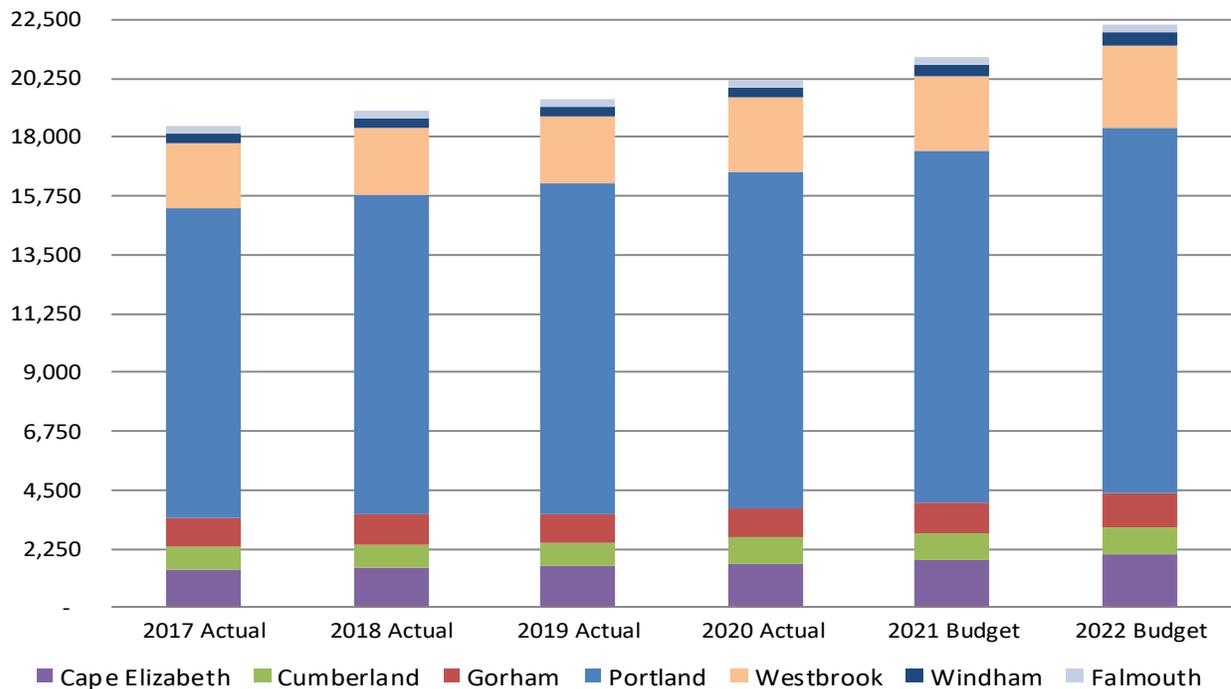
## Wastewater Assessments Revenue Trend

Wastewater assessments rose from \$18.4 million in 2017 to a budgeted \$22.3 million in 2022 (an increase of 21.3%). While operating costs did increase over this time period, the majority of the increases were due to capital projects done to upgrade existing wastewater facilities.

### Wastewater Assessments by Fund:

	Cape Eliz.	Cumberland	Gorham	Portland	Westbrook	Windham	Falmouth	Total
2017 Actual	1,468,692	844,584	1,106,148	11,841,972	2,533,176	360,528	263,604	18,418,704
2018 Actual	1,539,840	905,364	1,106,148	12,248,424	2,533,176	360,528	310,056	19,003,536
2019 Actual	1,572,912	905,364	1,133,436	12,616,080	2,539,800	366,768	314,112	19,448,472
2020 Actual	1,705,380	965,292	1,160,676	12,863,340	2,820,768	389,004	314,112	20,218,572
2021 Budget	1,835,412	989,268	1,188,840	13,441,944	2,903,244	410,916	314,112	21,083,736
2022 Budget	2,061,612	1,005,600	1,313,100	13,960,236	3,173,124	518,412	314,112	22,346,196

### Assessments by Fund (2017-Present) (\$,000)



## Current Municipal Wastewater Rates

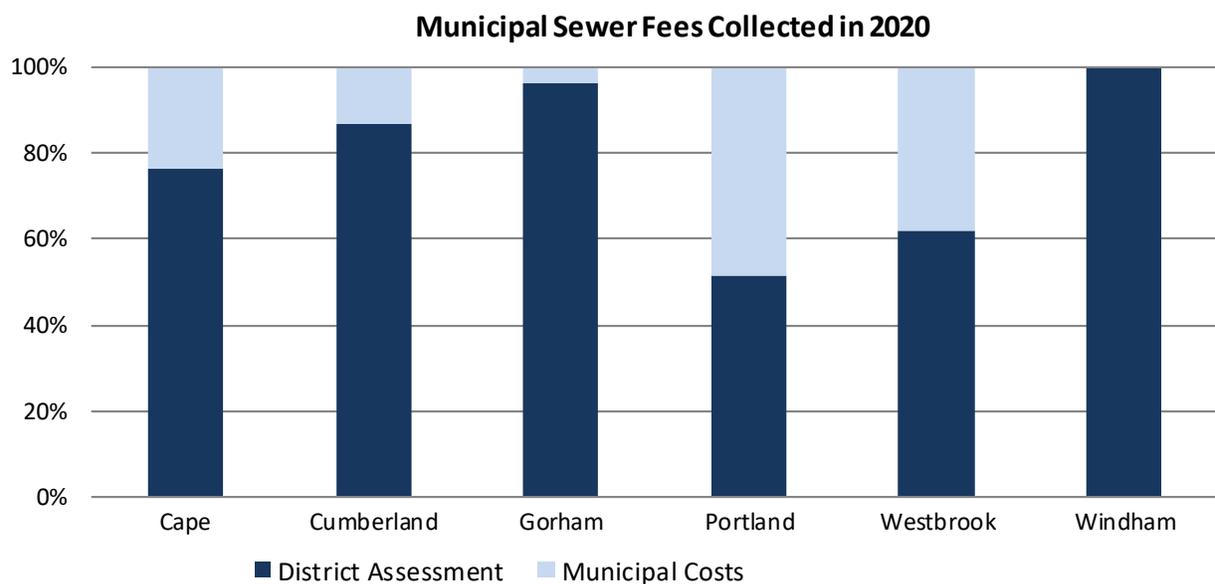
Wastewater rates are established by each municipality. The rates are designed to cover the municipal costs, including the District's annual assessment. The table below indicates the municipal sewer fees for municipalities for whom the District provides billing services. These fees are included on the monthly bill, which includes the District's water fees. Customers remit their payments for both water and sewer fees to the District. On a weekly basis, the sewer fees are then remitted to the municipalities. Once a month, the municipality pays 1/12th of the annual assessment to the District from these sewer fees.

### Sewer Rates as of 9/1/2021

	Minimum HCF	Minimum Charge	Additional HCF
Portland	1	\$11.80	\$11.80
Cumberland	0	36.92	5.52
South Portland	1	5.74	5.74
Cape Elizabeth	1	49.50	5.68
Westbrook	1	12.33	7.33
Gorham	1	14.39	6.64
Windham	5	48.84	7.00

HCF= Hundred Cubic Feet (748 gallons)

The chart below indicates the percent of sewer fees collected in 2020 that the municipalities used to pay the District's assessment and their internal costs. In 2020, Windham's sewer fees were less than the District's assessment by \$39,937. The shortfall was covered by the town's prior year surplus or general fund appropriation.



## Interest Income

The District's investment policy limits investments to US Government obligations, certificates of deposit that are fully insured or collateralized, and other similar issues with the goal of protecting the District's principal balances. The budgeted rate of return on investments was based on the current annual returns as of May 2021 and cash balances as of May 2021. Rates of return have plummeted quickly this past year and stayed there due to the global pandemic and we took that into account for 2022.

In 2008, the Windham fund purchased assets from the Westbrook fund. This purchase was funded by a loan between funds of \$264,733 and has an average interest rate of 4.395%. Westbrook will receive \$3,637 from that loan in 2022.

	2020 Actual	2021 Actual Jan-Jun	2021 Budget	2022 Budget	\$-Diff.	%-Diff.
<b>Water Fund</b>	\$319,634	\$9,559	\$143,433	\$57,000	(86,433)	-60.3%
<b>Wastewater Operating Funds:</b>						
Cape Elizabeth	14,639	347	8,000	2,303	(5,697)	-71.2%
Cumberland	12,505	381	6,001	2,209	(3,792)	-63.2%
Falmouth	1,625	35	1,000	300	(700)	-70.0%
Gorham	25,366	674	11,997	4,202	(7,795)	-65.0%
Portland	117,640	3,937	60,003	20,207	(39,796)	-66.3%
Westbrook	80,316	6,424	41,216	16,938	(24,278)	-58.9%
Windham	<u>7,238</u>	<u>164</u>	<u>4,005</u>	<u>1,101</u>	<u>(2,904)</u>	<u>-72.5%</u>
	259,329	11,962	132,222	47,260	(84,962)	-64.3%
<b>Contracted Billing:</b>						
Scarborough	130	3	0	0	-	#DIV/0!
South Portland	<u>2,879</u>	<u>69</u>	<u>1,000</u>	<u>400</u>	<u>(600)</u>	<u>-60.0%</u>
	3,009	72	1,000	400	(600)	-60.0%
<b>Total</b>	\$ 581,972	\$ 21,593	\$ 276,655	\$ 104,660	\$ (171,995)	-62.2%

## Other Income

Other revenues consist of fees charged for various other services including fees related to new water assets, new account setups, work done for outside parties and the acceptance of septage. The specific fees are outlined below:

Revenue Type	Revenue Description
Cross Connection Fees	Fees collected for work relating to the inspection of water backflow devices.
Customer Connection Fees	Application fees for new mains, services and meters.
Customer Activation Fees	Fees for new account activations.
Jobbing Revenue	Revenue for work performed by District employees that is billable to outside parties.
Septage Hauler Fees	Fees from outside septage haulers for the treatment of wastewater delivered to District wastewater treatment facilities.
Wastewater Misc. Income	Treatment services provided at the Westbrook Regional Wastewater Treatment Facility for Portland's Riverside area per inter-municipal agreement.

Water Fund:	2020 Actual	2021 Actual Jan-Jun	2021 Budget	2022 Budget	\$-Diff.	%-Diff.
Cross Connection Fees	\$24,890	\$17,937	\$45,000	\$45,000	\$0	0.0%
Customer Connection Fees	41,402	20,174	82,000	82,000	-	0.0%
Customer Activation Fee	78,391	35,216	75,000	78,000	3,000	4.0%
Jobbing Surcharge	56,362	28,241	55,000	55,000	-	0.0%
Miscellaneous Income	169,957	63,280	176,482	165,076	(11,406)	-6.5%
<b>Total Water Division</b>	<b>\$371,002</b>	<b>\$164,848</b>	<b>\$433,482</b>	<b>\$425,076</b>	<b>(\$8,406)</b>	<b>-1.9%</b>

Wastewater Funds:	2020 Actual	2021 Actual Jan-Jun	2021 Budget	2022 Budget	\$-Diff.	%-Diff.
Septage - Gorham	\$978	\$289	\$0	\$950	\$950	0.0%
Septage - Portland	270,234	154,853	210,000	250,000	40,000	19.0%
Septage - Westbrook	7,520	1,868	0	7500	7500	0.0%
Septage - Windham	226	67	0	225	225	0.0%
Miscellaneous Income	61,883	24,900	48,000	42,700	(5,300)	-11.0%
<b>Total Wastewater Division</b>	<b>340,841</b>	<b>181,977</b>	<b>258,000</b>	<b>301,375</b>	<b>43,375</b>	<b>16.8%</b>
<b>Total Water &amp; Wastewater</b>	<b>\$711,843</b>	<b>\$346,825</b>	<b>\$691,482</b>	<b>\$726,451</b>	<b>\$34,969</b>	<b>5.1%</b>

## Fund Balance

Operating Fund Balance is the excess of revenues over expenses on a budgetary basis (see Financial Policy section for differences between budgetary and generally accepted accounting principles).

Watershed Protection Land funds have been established from transfers from the Operating Fund Balances (Watershed Reserve) or net proceeds from land sales (Land Cash Reserve). Other Reserves consists of Water Capital Reserve for main renewal projects, Water Rate Stabilization to provide funds to mitigate future rate increases, Water Master Plan to provide funding for upcoming infrastructure master plan and Portland Wastewater for Portland's share of expanding the treatment facility located in Westbrook.

The Cape Elizabeth, Gorham and Windham Operating Funds declined more than 10% due to higher than expected operating costs during 2020. The South Portland Operating fund declined by more than 10% due to paying the fund's share of the new billing system. The Land Cash Reserve decreases related to purchase of watershed land easements. Water Capital Reserve increase due to additional 1% of water revenue allocated to the fund. The Water Master Plan fund withdrawal is expected to pay for the first phase of the plan.

### Water & Wastewater Fund Operating Surpluses (Goal 25.0%)

	Balance 01/01/21	Projected 2021	Budget 2022	Balance 12/31/22	Target Balance	Projection %
Water	\$6,824,529	\$167,957	-	\$6,992,486	\$6,781,721	25.8%
Cape Elizabeth	361,999	(38,459)	-	323,540	515,979	15.7%
Cumberland	225,537	(1,904)	-	223,633	251,952	22.2%
Gorham	300,209	(43,442)	-	256,767	329,563	19.5%
Portland	3,427,987	136,005	-	3,563,992	3,557,611	25.0%
Westbrook	704,619	(66,053)	-	638,566	810,066	19.7%
Windham	57,046	(7,238)	-	49,808	129,935	9.6%
	\$11,901,926	\$146,866	-	\$12,048,792	\$12,376,827	24.3%

### Falmouth & Contracted Billing Operating Surpluses:

	Balance 01/01/21	Projected 2021	Budget 2022	Balance 12/31/22
Falmouth	\$20,837	\$8,630	\$5,225	\$34,692
Scarborough	8,460	144	(452)	8,152
So. Portland	146,669	(126,596)	(17,683)	2,390
	\$175,966	(\$117,822)	(\$12,910)	\$45,234

### Watershed Protection Land Funds (Goal 15.0%)

	Balance 01/01/21	Projected 2021	Budget 2022	Balance 12/31/22	Target Balance	Projection %
Watershed Reserve	\$1,386,288	\$13,860	\$9,600	\$1,409,748	\$3,722,639	5.7%
Land Cash Reserve	584,357	(54,023)	(30,353)	499,981		
	\$1,970,645	(\$40,163)	(20,753)	\$1,909,729	\$3,722,639	7.4%

### Other Reserves:

	Balance 01/01/21	Projected 2021	Budget 2022	Balance 12/31/22
Water Capital Reserve	\$894,562	-\$45,232	\$180,036	\$1,029,366
Water Rate Stabilization	\$300,000	\$0	\$0	\$300,000
Water Master Plan	\$944,548	\$0	-\$750,000	\$194,548
Portland Wastewater	\$84,401	\$7,500	\$10,500	\$102,401

## Fee Schedule for Non-Water Tariff Services

Schedule of latest fees adopted by the Board of Trustees effective August 1, 2018.

	Description	Fee
<b>A. Water</b>		
1. Winter hydrant inspection	Inspection of private hydrants to verify the operability of hydrant during winter months	\$3 per month on monthly water bill. Cost covers the average cost to inspect hydrant
2. Damage Hydrants	Repair of hydrants damaged by customers	Costs to repair including labor, benefit overhead, stock items with normal markup (25%), third-party expenses and \$7 finance department administrative fee
<b>B. Wastewater</b>		
1. Industrial pretreatment permit	Initial and periodic review of the customer premises to assure compliance with IPT regulations	\$300 for initial and every 3-year renewal.
2. Septage and Holding Tank Waste	Qualifying haulers may deliver septage, holding tank and other waste to PWD treatment facilities (see policy 6.20-03)	Consistent with the 'Acceptance Fee Schedule' included in Policy 6.20-03.
3. Submeter Fee -Monthly	Covers the operating and capital cost of the submeter program	\$2 per month at the request of Cumberland, Gorham, South Portland and Westbrook
4. Submeter Fees -Other	The cost to investigate why a submeter cannot be read after the initial installation of meter/Encoder Receiver Transmitter (ERT).	Sub meter verification fee \$19
5. Submeter Fees – Portland Only	Costs or replacing submeters for Portland residents.	Submeter Replacement ERT & Meter \$150 Submeter ERT Only Upgrade fee \$105  Fees are per City's request.
<b>C. General</b>		
1. Purchases from Stock Room	Qualified third-parties and employees may purchase items from the stockroom – see policy 7.15-02.	Inventory value plus a 50% mark up (See Policy 7.15-02).
2. Freedom of Information Request	Members of the Public requesting access to public records (see policy 7.05-05).	\$1 for first page, \$0.50 for each additional page, optional \$15/hour to compile data. Payment in advance may be required. (See Policy 7.05-05)

## Introduction

Operating Expenses are recorded to each department by expense category by fund and program. A summary of all expense categories is provided with an explanation of major assumptions and changes. Additionally, operating expenses for each department is provided. The District has five departments – Water Operations, Wastewater Operations, Environmental Services, Engineering Services and Administrative Services. For each department, the following information is provided:

- Description of Core Services
- Key Statistics
- Performance Benchmarks
- Past Accomplishments
- Current Year Projects and Initiatives
- Financial Summary in total and by sub-departments with a summary of each sub-department fund and program expenses

## 2022 Financial Summary by Category

	2021 Budget	2022 Budget	Diff \$	Diff %
Salaries & Wages	\$12,516,650	\$12,788,195	\$271,545	2.2%
Employee Benefits	5,979,151	5,669,276	(309,875)	-5.2%
Biosolids Disposal	2,181,420	2,333,500	152,080	7.0%
Chemicals	1,363,231	1,296,355	(66,876)	-4.9%
Contracted Services	4,449,292	4,744,771	295,479	6.6%
Heat/Fuel Oil	328,901	367,960	39,059	11.9%
Insurance	222,707	260,142	37,435	16.8%
Materials & Supplies	1,722,510	1,819,287	96,777	5.6%
Other Expense	769,906	708,958	(60,948)	-7.9%
Purchased Power	1,896,317	2,086,722	190,405	10.0%
Regulatory/Taxes	300,696	560,236	259,540	86.3%
Tele/Other Utilities	386,574	433,662	47,088	12.2%
<u>Transportation</u>	<u>1,197,317</u>	<u>1,222,561</u>	<u>25,244</u>	<u>2.1%</u>
Dept Expense	33,314,672	34,291,625	976,953	2.9%
<u>Trans Offset</u>	<u>(803,190)</u>	<u>(841,512)</u>	<u>(38,322)</u>	<u>4.8%</u>
Fund Expense	32,511,482	33,450,113	938,631	2.9%

## 2022 Financial Summary by Department

	Number of Employees	2021 Budget	Number of Employees	2022 Budget	Budget Diff \$	Budget Diff %
Water Services	56	\$9,262,055	56	\$9,449,420	\$187,365	2.0%
Wastewater Services	39	10,889,691	39	11,577,567	687,876	6.3%
Environmental Services	16	2,144,175	16	2,191,611	47,436	2.2%
Engineering Services	31	4,327,806	32	4,443,069	115,263	2.7%
Administration	44	6,368,680	44	6,331,553	(37,127)	-0.6%
Non-Departmental	0	322,265	0	298,405	(23,860)	-7.4%
	186	33,314,672	187	34,291,625	976,953	2.9%

## Departmental Expense by Category

### Salaries/Wages:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
660111 - SALARIES/WAGES NON-UNION	4,597,920	2,454,012	4,925,510	5,068,321	142,811	2.9%
660112 - WAGES/OVERTIME NON-UNION	211	-	-	190	190	n/a
660121 - WAGES/REGULAR UNION	6,169,063	3,184,994	6,555,733	6,640,600	84,867	1.3%
660122 - WAGES/OVERTIME UNION	495,068	266,922	570,036	555,838	(14,198)	-2.5%
660123 - WAGES/DOUBLETIME UNION	56,215	37,736	70,734	80,952	10,218	14.4%
660124 - WAGES/STANDBY TIME UNION	178,381	100,936	186,757	215,033	28,276	15.1%
660131 - WAGES - REGULAR - TEMPS	49,640	26,081	180,880	200,261	19,381	10.7%
660136 - CONTRACTED - TEMP	39,653	14,673	-	-	-	n/a
66014 - VACATION ACCRUAL	193,563	-	-	-	-	n/a
660141 - TRUSTEES COMPENSATION	26,200	12,875	27,000	27,000	-	0.0%
66015 - SICKTIME ACCRUAL	51,174	-	-	-	-	n/a
<b>Salaries &amp; Wages Total</b>	<b>11,857,086</b>	<b>6,098,229</b>	<b>12,516,650</b>	<b>12,788,195</b>	<b>271,545</b>	<b>2.2%</b>

Labor rates for Non-Union employees were assumed to be 2.0% higher than the rates paid on July 1, 2021.

The Union contract expires in November 2021 and negotiations for a new contract were not completed at the time of budget preparation. The budget assumes a 2% labor rate increase.

Combined, the two regular labor accounts (660111 & 660121) increased \$227,678 (2%). Total hours decreased 2,009 (0.5%) due to a shift from operations to capital offset by additional Instrumentation position proposed. The budgeted dollars for labor reflect work on operating (O&M) activities. Labor planned for capital projects is included as part of the Capital Improvement Plan (CIP) later in this document. Overall, the percentage of labor planned for CIP projects increased from 3.0% of total labor in 2021 to 3.7% in 2022.

Budgeted hours for overtime/double-time decreased by 436 (-2.8%) while standby rose by 679 hours (10.7%) and temporary employee hours stayed flat with last year at 12,920 hours. Standby hours increased in the Wastewater Services Treatment area reflecting the reduction of staff working overnight necessitating the need to have more employees on standby.

District's overall regular (non-temporary) headcount increased by 1 to 187. An Associate Engineer was added in the Engineering Services – Instrumentation area.

Positions	2021 Budget	2022 Budget	Change
Full Time	185	186	1
Part Time	1	1	0
<b>Total</b>	<b>186</b>	<b>187</b>	<b>1</b>

The Human Resources section has additional details.

## Departmental Expense by Category (continued)

### Employee Benefits:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
660401 - FICA - EMPLOYERS' SHARE	885,663	466,613	957,518	978,306	20,788	2.2%
660405 - SAFETY/WHY PROGRAM ITEMS	32,226	16,813	41,325	44,245	2,920	7.1%
660411 - MEALS ALLOWANCE	10,900	6,930	10,100	11,100	1,000	9.9%
660413 - PWD TRAINING PROGRAM	1,024	-	-	-	-	n/a
6604151 - FIELD UNIFORMS	-	1,200	1,290	1,200	(90)	-7.0%
660418 - STIPENDS	11,600	10,700	13,300	11,400	(1,900)	-14.3%
660419 - EMPLOYEE BENEFITS-MISC OTH	38,747	7,517	26,880	34,297	7,417	27.6%
660491 - FRINGE BENEFITS-REG/SAL	4,209,023	2,400,316	4,928,738	4,588,728	(340,010)	-6.9%
<b>Employee Benefits Total</b>	<b>5,189,183</b>	<b>2,910,089</b>	<b>5,979,151</b>	<b>5,669,276</b>	<b>(309,875)</b>	<b>-5.2%</b>

The amount noted is the operating funds' portion of employee benefit cost. As with labor, a small portion of benefit expense is charged to capital projects.

The largest item (Fringe Benefits - 660491) covers the District's portion of employee benefits, most notably health insurance and pension. This charge is applied as a percentage of regular labor (excluding overtime, double time, etc.) charges. In the 2022 Budget, the percentage was 39.19%, which is a decrease from 2021's percentage of 42.94% mostly due to benefit costs related to a lower pension contribution offset by 8% higher health insurance.

The Human Resource section has additional details.

### Biosolids Disposal:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
663571 - BIOSOLIDS DISPOSAL	\$1,704,001	\$1,065,931	\$2,181,420	\$2,333,500	\$152,080	7.0%
<b>Biosolids Disposal Total</b>	<b>1,704,001</b>	<b>1,065,931</b>	<b>2,181,420</b>	<b>2,333,500</b>	<b>152,080</b>	<b>7.0%</b>

The material remaining at the end of the wastewater treatment process is called biosolids. The cost of biosolids disposal is the volume disposed (wet tons) times the rate per ton:

Facility	2021	2022	Change	%	2021 % Solids	2022 % Solids
Portland (East End)	19,650	18,828	(822)	-4.2%	21.0%	21.0%
Westbrook	4,229	4,238	9	0.2%	21.0%	21.0%
Cape Elizabeth	300	215	(85)	-28.3%	21.0%	21.0%
Peaks Island	59	54	(5)	-8.5%	21.0%	21.0%
<b>Total</b>	<b>24,238</b>	<b>23,335</b>	<b>(903)</b>	<b>-3.7%</b>		

The budget assumes a disposal rate of \$100/wet ton, that is a 11.1% increase over the 2021 Budget assumption of \$90. The higher unit costs relates to increased regulator and public concern with per- and poly-fluoroalkyl substances (PFAS) with the impact of limiting the available outlets to dispose of biosolids.



**Departmental Expense by Category (continued)**

**Contracted Services:**

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
662063 - COPIER MAINTENANCE/TONER	14,591	6,043	15,000	15,000	-	0.0%
6631 - ENGINEERING SERVICES	60,968	20,193	71,000	76,000	5,000	7.0%
6632 - ACCOUNTING SERVICES	37,500	34,500	38,500	39,000	500	1.3%
66331 - LEGAL - LABOR RELATIONS	25,916	9,244	65,000	68,000	3,000	4.6%
66333 - BOND COUNSEL	7,514	-	7,500	7,600	100	1.3%
66339 - LEGAL - OTHER	6,257	28,399	20,000	20,000	-	0.0%
663521 - TRAFFIC CONTROL	190,437	71,593	82,800	148,800	66,000	79.7%
663522 - PAVING	7,881	-	-	-	-	n/a
6635221 - PAVING - MINOR REPAIR	463,377	264,995	526,000	526,000	-	0.0%
663523 - SIDEWALK	13,811	2,610	18,500	18,500	-	0.0%
663524 - STREET OPENING	66,429	18,612	61,100	65,100	4,000	6.5%
663525 - CONTRACTOR CONSTRUCTION	1,071,743	279,252	583,500	724,500	141,000	24.2%
663526 - INSPECTION SERVICES	1,728	-	-	-	-	n/a
663527 - EMERGENCY RESPONSE- FEMA	450	450	-	-	-	n/a
66353 - REPAIR SERVICES	57,554	90,995	124,900	126,900	2,000	1.6%
66354 - MAINTENANCE SERVICES	660,739	300,692	766,524	763,497	(3,027)	-0.4%
663542 - LARGE METER TESTING	8,946	8,702	10,000	12,500	2,500	25.0%
663543 - CSO FLOW MONITORING	118,869	60,692	154,000	154,000	-	0.0%
663544 - MAINT SERVICES - CCTV	85,300	26,800	61,250	61,250	-	0.0%
663545 - RADIO SERVICING AND EQUIP	1,347	340	3,000	3,000	-	0.0%
663546 - MAINTENANCE - SNOW REMOVL	132,301	64,629	128,353	154,943	26,590	20.7%
663547 - WASTE SLUDGE TRANSPORT	32,384	13,519	49,800	34,200	(15,600)	-31.3%
663551 - LAB ANALYSIS	57,796	15,366	32,190	37,835	5,645	17.5%
663553 - PHOTOGRAPHY SERVICES	-	-	600	600	-	0.0%
663561 - COMPUTER LICENSES	94,799	81,465	101,431	107,007	5,576	5.5%
663562 - COMPUTER MAINTENANCE	277,190	210,343	418,377	418,044	(333)	-0.1%
663563 - COMPUTER CONSULTING/OTHER	15,770	8,655	23,600	30,600	7,000	29.7%
663572 - GRIT & SCREENS DISPOSAL	59,369	5,423	65,650	65,650	-	0.0%
663573 - GREASE DISPOSAL	22,277	11,885	30,700	30,200	(500)	-1.6%
663574 - DISPOSAL SERVICES	29,634	7,079	44,590	41,425	(3,165)	-7.1%
663583 - RECEIVABLE COLLECTIONS	5,472	3,407	10,000	10,000	-	0.0%
663584 - BANK SERVICE CHARGES	15,305	9,908	25,200	21,600	(3,600)	-14.3%
663585 - TREATMENT CONTRACT SERVIC	484,062	229,583	435,600	485,620	50,020	11.5%
6635851 - WW DEWATERING SERVICES	3,656	2,357	9,062	6,080	(2,982)	-32.9%
6635852 - WW DEWATERING SRVS CREDIT	(3,656)	(2,357)	(5,000)	(3,600)	1,400	-28.0%
663587 - COURIER SERVICES	23,256	11,340	23,600	23,200	(400)	-1.7%
663588 - EQUIPMENT MAINTENANCE	14,097	3,292	15,000	15,000	-	0.0%
663589 - SECURITY SERVICES	20,156	-	-	-	-	n/a
663592 - RECRUITING SERVICES	2,268	2,303	6,000	6,000	-	0.0%
663594 - DIGSAFE	35,212	23,684	63,000	45,000	(18,000)	-28.6%
663595 - OUTPLACEMENT SERVICES	-	-	500	500	-	0.0%
663598 - HR CONSULTANT SERVICES	22,144	1,480	8,000	15,000	7,000	87.5%
6635982 - TREE TRIMMING / REMOVAL	-	-	5,000	5,000	-	0.0%
6635984 - LANGUAGE INTERPRETATION	-	-	355	355	-	0.0%
6635985 - VEHICLE FLEET GPS SERVICE	21,560	10,780	25,000	25,000	-	0.0%
663599 - MISC OTHER SERVICES	37,225	9,957	38,140	39,465	1,325	3.5%
6636 - TECHNICAL SERVICES	24,976	18,227	35,300	50,600	15,300	43.3%
<b>Contracted Services Total</b>	<b>4,562,044</b>	<b>2,073,519</b>	<b>4,449,292</b>	<b>4,744,771</b>	<b>295,479</b>	<b>6.6%</b>

**Departmental Expense by Category (continued)**

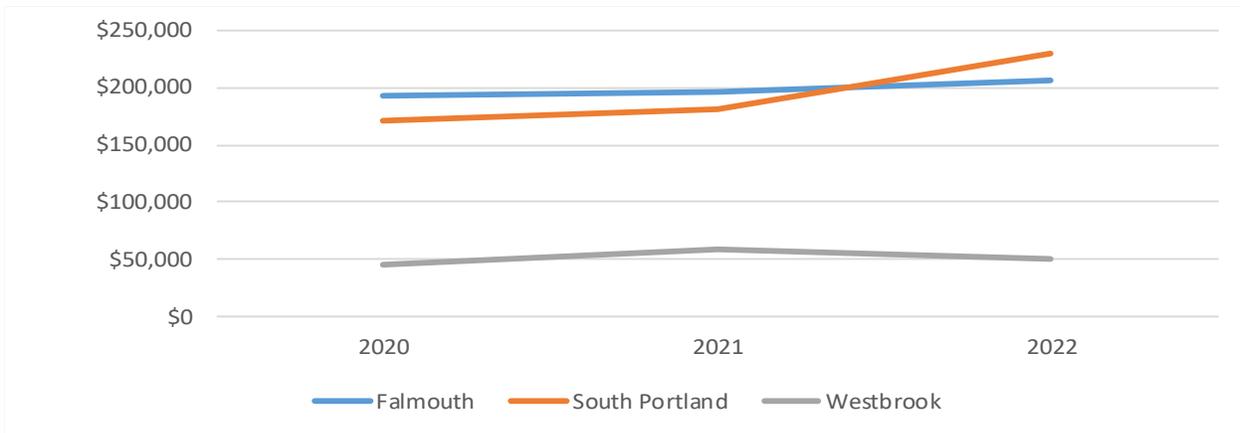
**Contracted Services**, which had a budget increase of \$295,479 or 6.6%, covers a large variety of services provided by outside vendors. The budgeted expenditures for 2022 were \$4.74 million. Budget changes of note include:

**663521 – Traffic Control (up \$66,000 or 79.7%)** – Water Services has increased the traffic control budget by \$66,000 in regards to mains, valves, and service maintenance to be more in line with actuals in the last three years.

**663525 – Contractor Construction (up \$141,000 or 24.2%)** – Water Services has increased the budget for paving after main repairs by \$200,000 and lowered the maintenance on the mains and valves by \$50,000. Also in Gorham wastewater, we have increased the budget for manhole raising by \$15,000 due to actual costs in 2021 which we predict will continue to 2022.

**663546 – Maintenance - Snow Removal (up \$26,590 or 20.7%)** - These are the costs associated with maintenance agreements with a contractor for snow removal and landscaping at the different facilities. The contract increased by \$14,275 at the Sebago Lake Treatment Facility and by \$8,500, in total, at the Wastewater facilities.

**663585 - Treatment Contracted Services (up \$50,020 or 11.5%)** – This item was budgeted for \$485,600 in 2022. South Portland and Falmouth treat the wastewater flows from Cape Elizabeth and Cumberland, respectively. The District is assessed and pays an annual fee to those communities for that service and Cape Elizabeth’s flows to South Portland increased. Portland also pays Westbrook for flows from the Riverside area. Costs for debt service related to the upgrades of the Mill Creek Wastewater Pump Station and related force main are reflected under the debt service totals for Cumberland and Falmouth.



## Departmental Expense by Category (continued)

### Deferred Cost Write-Off:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
66754 - DEFERRED COSTS WRITE OFF	\$ 450,410	-	-	-	-	n/a
<b>Deferred Cost W/O Total</b>	<b>450,410</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>n/a</b>

### Heat/Fuel Oil:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
66161 - HEATING OIL	101,853	54,424	87,265	110,681	23,416	26.8%
661621 - PIPELINE DELIVERED PROPAN	125,806	80,960	137,559	138,973	1,414	1.0%
661622 - CONTAINER DELIVERED	75,779	62,507	80,027	90,756	10,729	13.4%
66166 - UNLEADED GAS	16,689	5,588	24,050	27,550	3,500	14.6%
<b>Heat/Fuel Oil Total</b>	<b>320,128</b>	<b>203,479</b>	<b>328,901</b>	<b>367,960</b>	<b>39,059</b>	<b>11.9%</b>

The first three accounts in this category (66161 to 661622) involve fuel used for facilities' heat or backup generators. Unleaded Gas (66166) is for District vehicles that fuel up at remote locations and for the boat used in the District's Sebago Lake monitoring efforts. Heating Oil and Propane Gas costs have increased as the per unit cost of both energy types rise.

	2021 Assumption		2022 Assumption		% Change	
	Units	Per Unit	Units	Per Unit	Units	Per Unit
<b>Heating Oil:</b>						
Water Treatment/Ozone Plant	35,225	\$1.69	32,650	\$2.29	-7.3%	35.5%
Westbrook WWTF	8,500	\$1.69	9,050	\$2.29	6.5%	35.5%
Cape Elizabeth WWTF	3,288	\$1.69	3,000	\$2.29	-8.8%	35.5%
Peaks Island WWTF	2,240	\$2.81	1,945	\$3.41	-13.2%	21.4%
Water - Throttling Valve Building	840	\$1.81	700	\$2.41	-16.7%	33.1%
	50,093	\$1.74	47,345	\$2.34	-5.5%	34.2%
<b>Natural Gas:</b>						
Portland (East End) WWTF	74,256	\$0.99	73,680	\$1.04	-0.8%	5.1%
Dana Court WWPS (Westbrook)	2,804	\$1.07	2,813	\$1.12	0.3%	4.7%
Douglass Street	55,000	\$1.07	50,000	\$1.12	-9.1%	4.7%
	129,256	\$1.02	123,680	\$1.07	-4.3%	4.7%

### Insurance:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
6656 - VEHICAL INSURANCE	37,223	20,160	38,731	44,353	5,622	14.5%
6657 - GEN LIABILITY INSURANCE	52,405	28,224	56,163	62,092	5,929	10.6%
66592 - DAMAGES & CLAIMS-GOODWILL	46,975	-	5,500	5,500	-	0.0%
66593 - UMBRELLA INSURANCE COVER	10,090	5,475	10,783	12,046	1,263	11.7%
66594 - PROFESSION/CRIME BONDING	27,386	14,144	29,794	31,118	1,324	4.4%
66599 - PROPERTY & BOILER INSUR	79,555	48,970	81,736	105,033	23,297	28.5%
<b>Insurance Total</b>	<b>253,633</b>	<b>116,973</b>	<b>222,707</b>	<b>260,142</b>	<b>37,435</b>	<b>16.8%</b>

Insurance costs include premiums paid on coverage for District property as well as small claims paid directly to outside parties. The district's asset values have grown in the last year, therefore we increased the insurance coverage.

## Departmental Expense by Category (continued)

### Materials & Supplies:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
6619 - ASSET PURCHASES	159,590	66,922	287,775	262,875	(24,900)	-8.7%
662012 - CRUSHED GRAVEL	436	-	1,750	1,750	-	0.0%
662014 - CRUSHED STONE	381	238	-	500	500	n/a
662015 - LOAM	-	222	-	-	-	n/a
662016 - SAND	-	-	3,820	3,820	-	0.0%
662017 - SAND AND SALT	900	1,309	3,452	3,452	-	0.0%
662018 - BANKRUN GRAVEL	765	361	2,000	2,000	-	0.0%
662019 - GRAVEL - TYPE A (DOT)	1,353	-	2,000	2,000	-	0.0%
66202 - TOOLS	27,669	17,654	42,850	46,100	3,250	7.6%
66203 - VENDOR PURCHASED SUPPLIES	506,159	248,530	478,344	472,635	(5,709)	-1.2%
662041 - MATERIALS INVENTORY	240,607	122,465	229,980	250,680	20,700	9.0%
662042 - SUPPLIES INVENTORY	117,757	50,480	95,475	100,725	5,250	5.5%
66204201 - INVENTORY - QPR	1,142	1,919	2,500	1,400	(1,100)	-44.0%
66204202 - INVENTORY - BNKRUN GRAVEL	14,423	10,635	14,500	16,000	1,500	10.3%
66204203 - INVENTORY - CRUSHD GRAVEL	7,233	1,145	18,750	13,250	(5,500)	-29.3%
66204204 - INVENTORY - CRUSHED STONE	2,804	2,073	2,250	2,250	-	0.0%
66204205 - INVENTORY - LOAM	1,674	(328)	1,250	1,250	-	0.0%
66204206 - INVENTORY - TYPE A GRAVEL	23,965	15,829	20,000	28,500	8,500	42.5%
662043 - TOOL INVENTORY	80,954	56,400	95,875	98,675	2,800	2.9%
66204301 - INVENTORY - TONER	2,107	1,327	1,000	1,000	-	0.0%
66204302 - INVENTORY - PAPER	2,608	1,229	4,300	4,300	-	0.0%
66204303 - INVENTORY - COMPUTER EQUIP	13,972	3,404	15,575	15,691	116	0.7%
662044 - METER INVENTORY	(55,941)	(19,110)	6,100	5,750	(350)	-5.7%
662046 - HYDRANT INVENTORY	51,373	21,024	61,500	61,000	(500)	-0.8%
662047 - GARAGE INVENTORY	15,024	9,067	17,050	16,550	(500)	-2.9%
66204701 - INVENTORY - UNLEADED GAS	121,593	59,937	84,620	120,669	36,049	42.6%
66204702 - INVENTORY - DIESEL	42,997	15,540	36,895	45,570	8,675	23.5%
66204703 - INVENTORY - TIRES	11,521	3,498	15,000	15,000	-	0.0%
66205 - CONSUMABLE SUPPLIES	70,373	49,382	92,750	92,600	(150)	-0.2%
66206 - COMPUTER RELATED EQUIP	44,991	14,817	85,149	103,295	18,146	21.3%
66207 - EQUIPMENT PARTS	-	12,909	-	30,000	30,000	n/a
<b>Materials &amp; Supplies Total</b>	<b>1,508,430</b>	<b>768,881</b>	<b>1,722,510</b>	<b>1,819,287</b>	<b>96,777</b>	<b>5.6%</b>

This group is a wide array of items including vehicle fuel and parts, bulk materials such as gravel, water infrastructure items (mains, meters, hydrants, and fittings) and office supplies. These items are consumed during normal operations and are used for the repair and maintenance of District assets. The 2022 Budget increased \$96,777 or 5.6% because vehicle fuel price per unit rose in the high 30% range (see below).

The assumptions for vehicle fuel were:

Fuel Type	2021 Assumption		2022 Assumption		% Change	
	Units	Per Unit	Units	Per Unit	Units	Per Unit
Diesel	23,500	\$1.57	21,000	\$2.17	-10.6%	38.2%
Unleaded Gas	<u>53,220</u>	\$1.59	<u>55,100</u>	\$2.19	<u>3.5%</u>	37.7%
	76,720		76,100		-0.8%	

## Departmental Expense by Category (continued)

### Other Expense:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
6641 - BUILDING/REAL PROP RENT	-	-	6,600	-	(6,600)	-100.0%
66411 - INTERNAL RENTAL CHARGES	51,030	25,515	51,030	51,030	-	0.0%
6642 - EQUIPMENT RENT	69,447	3,216	21,140	20,740	(400)	-1.9%
66601 - PUBLIC RELATIONS	5,287	1,949	13,150	7,950	(5,200)	-39.5%
66609 - OTHER ADVERTISING	8,641	3,314	9,100	10,550	1,450	15.9%
6670 - BAD DEBT EXPENSE	220,372	25,000	50,000	-	(50,000)	-100.0%
667511 - TRAINING & CONFERNCES	-	570	-	-	-	n/a
6675111 - INSTATE TRAINING/CONF	63,539	39,517	98,855	111,585	12,730	12.9%
6675112 - OUT OF STATE TRAINING/CON	7,679	645	51,550	66,700	15,150	29.4%
6675121 - IN STATE CONFERENCES	225	-	-	-	-	n/a
667513 - DUES	62,055	48,493	95,786	94,518	(1,268)	-1.3%
667514 - PROFESSIONAL LICENSES	4,714	10,120	16,650	11,990	(4,660)	-28.0%
667515 - PERIODICAL SUBSCRIPTIONS	4,830	2,819	8,305	7,555	(750)	-9.0%
667517 - PLANT OPER LICENSE FEES	-	-	75	150	75	100.0%
667521 - POSTAGE - THIRD PARTY	194,724	101,380	269,233	209,453	(59,780)	-22.2%
667522 - POSTAGE - INTERNAL	10,628	6,755	17,016	16,916	(100)	-0.6%
667523 - POSTAGE - EXPRESS DELIVER	1,855	883	2,475	2,325	(150)	-6.1%
667531 - PRINTING COSTS	36,540	17,526	65,776	67,376	1,600	2.4%
667532 - PHOTOCOPYING COSTS	-	(65)	-	-	-	n/a
667533 - FORMS STOCK	789	789	1,325	1,200	(125)	-9.4%
667552 - SAFETY TRAINING	1,447	-	4,350	5,350	1,000	23.0%
667553 - DOT SUBSTANCE ABUSE	2,597	1,067	2,000	3,000	1,000	50.0%
667554 - EPA / OSHA COMPLIANCE	871	-	-	-	-	n/a
667555 - SAFETY EXPENSES	35,345	5,830	44,370	53,370	9,000	20.3%
667556 - FREIGHT CHARGES (STOCK)	-	24	3,000	2,700	(300)	-10.0%
667561 - WATERSHED GRANTS/SUPPORT	36,969	14,888	41,450	42,200	750	1.8%
667581 - ANNUAL LAND CONTRIB CAPE	833	4,000	-	-	-	n/a
667591 - UNIFORMS	1,811	1,048	2,300	2,300	-	0.0%
667592 - FOOD SUPPLIES	2,867	672	9,060	9,130	70	0.8%
667593 - VENDOR INTEREST CHARGES	-	(4,066)	(4,500)	(4,500)	-	0.0%
667598 - GEN MANAGER CONTINGENCY	-	-	44,500	69,500	25,000	56.2%
6675981 - GEN MNG - TRUSTEES	11,133	600	14,350	16,850	2,500	17.4%
6675982 - GEN MNG - COMMUNITY	11,027	2,824	32,900	32,900	-	0.0%
667599 - OTHER MISCELLANEOUS	10,197	4,132	2,050	2,550	500	24.4%
6676 - EXPENSE OFFSET	(172,481)	(115,147)	(220,990)	(223,430)	(2,440)	1.1%
6706 - AMORT OF U P ACQ ADJUSTS	17,000	8,500	17,000	17,000	-	0.0%
<b>Other Expense Total</b>	<b>701,970</b>	<b>212,799</b>	<b>769,906</b>	<b>708,958</b>	<b>(60,948)</b>	<b>-7.9%</b>

Other expenses include postage (\$228,694, down \$60,030 or -20.8%), training and conferences (\$178,285, up \$27,880 or 18.5%) and dues (\$94,518, down \$1,268 or -1.3%). Postage expense is lower than 2021 due to higher expected volumes in the billing system conversion in 2021 compared to post go-live we would see lower volumes. Training and conferences have also been increased to encourage more training since the pandemic put most on hold.

The Expense Offset (6676) contains expenses transferred to other departments or capital projects.

## Departmental Expense by Category (continued)

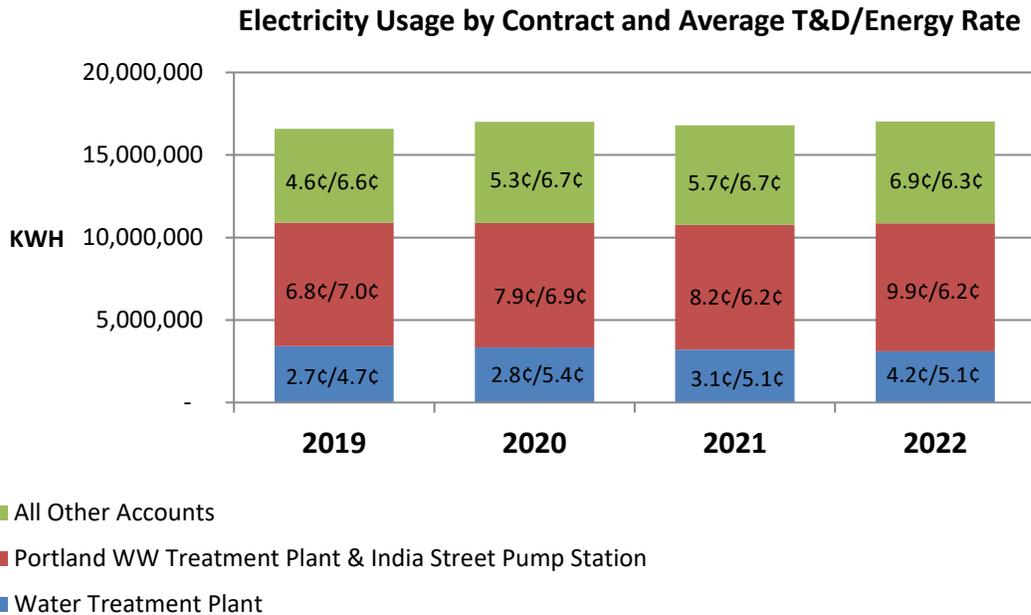
### Purchased Power:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
66151 - POWER - LARGE ENERGY	475,732	332,299	628,081	634,605	6,524	1.0%
661510 - RENEW ENERGY EXPENSE	4,980	11,792	-	-	-	n/a
661511 - RENEW ENERGY FEES	373	-	-	-	-	n/a
66152 - POWER - LARGE T&D	487,212	213,461	532,721	647,245	114,524	21.5%
66153 - POWER - MEDIUM ENERGY	360,298	181,125	337,620	324,144	(13,476)	-4.0%
66154 - POWER - MEDIUM T&D	254,034	117,381	260,124	329,650	69,526	26.7%
66155 - POWER - SMALL ENERGY	54,230	27,227	64,593	61,756	(2,837)	-4.4%
66156 - POWER - SMALL T&D	67,470	33,050	81,442	97,022	15,580	19.1%
66157 - POWER - OTHER CHARGES	91,321	-	-	-	-	n/a
66158 - LOAD RESPONSE	(7,910)	(1,975)	(8,264)	(7,700)	564	-6.8%
66159 - POWER - CAPACITY	71,300	-	-	-	-	n/a
<b>Purchased Power Total</b>	<b>1,859,039</b>	<b>914,361</b>	<b>1,896,317</b>	<b>2,086,722</b>	<b>190,405</b>	<b>10.0%</b>

Electricity is delivered through the Central Maine Power transmission & distribution (T&D) system. The average 2022 rate per kwh ranges from \$0.060 to \$0.099.

The District purchases its electricity from Constellation Energy through an energy aggregation group - Maine Power Option. Energy contracts with fixed rates are signed through the end of 2022 budget period.

The chart below shows the average rates for these 3 large accounts as well as the remaining 105 small and medium sized accounts.



## Departmental Expense by Category (continued)

### Regulatory/Taxes:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
667516 - PERMITS	29,391	9,665	31,431	31,481	50	0.2%
667518 - REGULATORY REQUIRED FEES	11,781	300	14,000	247,350	233,350	1666.8%
667519 - REGULATORY FINES	9,185	225	-	-	-	n/a
670821 - STANDISH REAL ESTATE TAX	52,234	26,159	55,930	54,700	(1,230)	-2.2%
670822 - OTHER R/E TAX(NON-STANDI)	8,572	5,450	9,060	9,230	170	1.9%
670823 - PUC ASSESSMENT	112,996	119,146	95,000	120,000	25,000	26.3%
670824 - ME DRINKING WTR PROGRAM	82,438	-	80,275	82,475	2,200	2.7%
670825 - PUC PUBLIC ADVOCATE	3,972	-	15,000	15,000	-	0.0%
<b>Regulatory/Taxes Total</b>	<b>310,568</b>	<b>160,944</b>	<b>300,696</b>	<b>560,236</b>	<b>259,540</b>	<b>86.3%</b>

The District pays real estate taxes to the Town of Standish (670821) & Towns of Windham and Gorham (670822). The District also pays annual assessments to the Maine Public Utility Commission (PUC) and the Maine Drinking Water Program. The PUC fee is based on each utility's revenues and time spent on matters related to each industry sector. The regulatory required fees are significantly increased this year due to the new Maine PFAS (per – and polyfluoroalkyl substances) \$10 per ton fee.

### Telephone/Other Utilities:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
6609 - UTILITIES/SUPPLIES	-	419	-	-	-	n/a
66101 - WATER	99,527	43,757	97,073	98,795	1,722	1.8%
66102 - WASTEWATER	101,055	43,888	77,798	96,812	19,014	24.4%
66103 - STORMWATER CHARGES	32,562	16,160	32,939	35,285	2,346	7.1%
66111 - TELEPHONE LINES	29,459	13,211	25,712	26,062	350	1.4%
66112 - DATA LINES	102,569	73,960	108,558	135,398	26,840	24.7%
66113 - CELLULAR PHONES	46,628	20,390	44,244	41,060	(3,184)	-7.2%
66114 - PAGERS	-	-	250	250	-	0.0%
<b>Tele/Other Utilities Total</b>	<b>411,800</b>	<b>211,784</b>	<b>386,574</b>	<b>433,662</b>	<b>47,088</b>	<b>12.2%</b>

The category is up \$47,088 (12.2%) in 2022. A large part of the increase is associated with the upgrade of the new 100 megabits per second (mbps) optical fiber data lines to the treatment facilities.

### Transportation:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
66501 - TRANSPORTATION - INTERNAL	518,853	299,189	726,041	680,207	(45,834)	-6.3%
665018 - TRANS - LAKE BOAT FLAT	-	-	-	7,500	7,500	n/a
665019 - TRANS INTERNAL INACTIVE	425,170	191,455	386,400	466,406	80,006	20.7%
66502 - TRANSPORTATION - EXTERNAL	34,088	17,758	59,300	43,626	(15,674)	-26.4%
66503 - MILEAGE REIMBURSEMENT	9,947	4,784	25,476	24,772	(704)	-2.8%
66504 - MTA TRANS-PASS TOLL FEES	37	-	100	50	(50)	-50.0%
<b>Transportation Total</b>	<b>988,095</b>	<b>513,186</b>	<b>1,197,317</b>	<b>1,222,561</b>	<b>25,244</b>	<b>2.1%</b>

A standard 40-hour week is charged for most vehicles. Transportation is charged when the vehicle is in use to Internal (66501) with the balance to Inactive (665019). Transportation external (66502) involves ferries to go the islands and vehicles rented from outside vendors. Mileage Reimbursement (66503) is paid to employees who use their own vehicles when conducting District business.

## Water Services – Purpose Statement

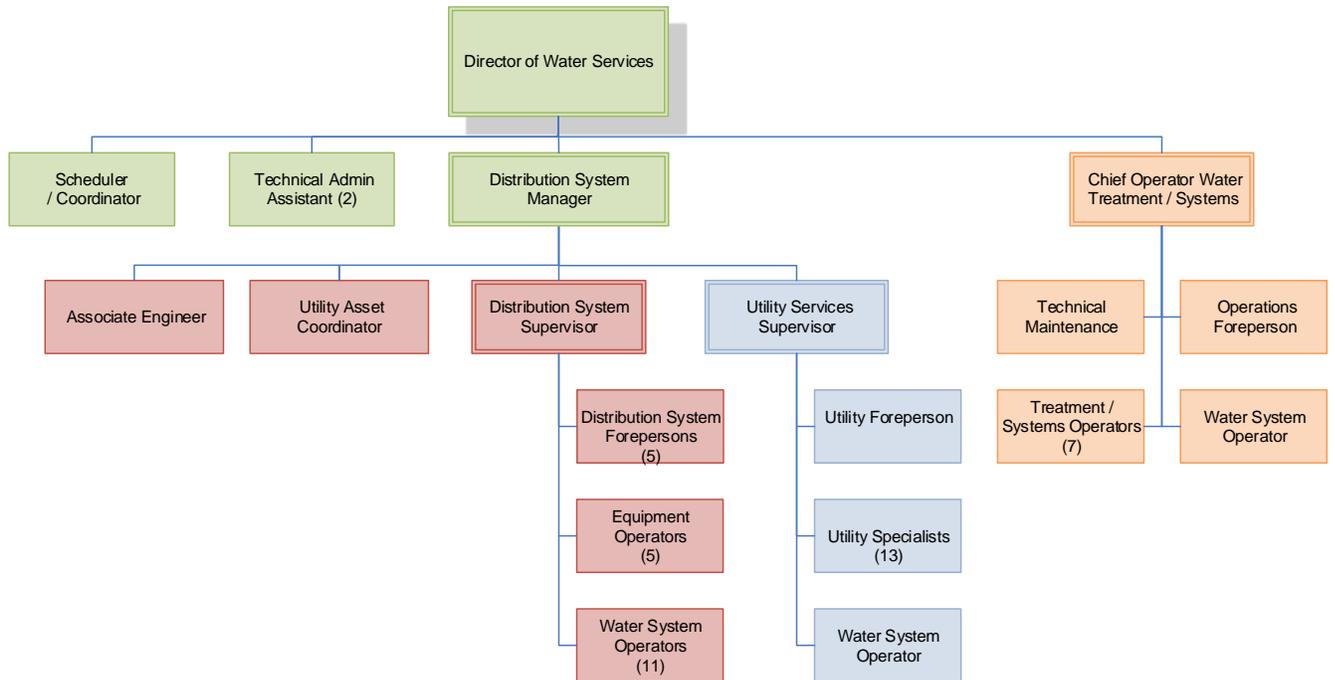
To operate and maintain water system infrastructure including the treatment, water storage and distribution systems.

## Core Services

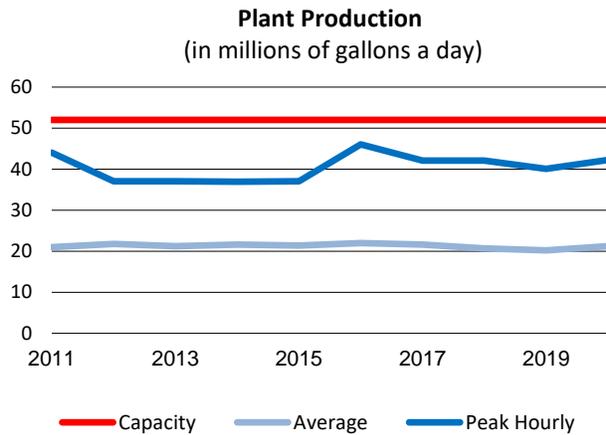
Water Operations is responsible for operating and maintaining the Sebago Lake and Steep Falls Well treatment and water distribution systems by providing the following services:

- Operation and maintenance of distribution system including emergency response, contractor inspection (Transmission/Distribution Group – A2; **red** in the organization chart).
- Operation and maintenance of the pumping, treatment, storage and chemical addition facilities (Treatment Group - A3; **orange** in organization chart).
- Field support services including customer meter and water quality inquiries, back-flow inspection, system flushing, hydrant inspection and contractor inspection (Utility Services Group – A6; **blue** in the organization chart).

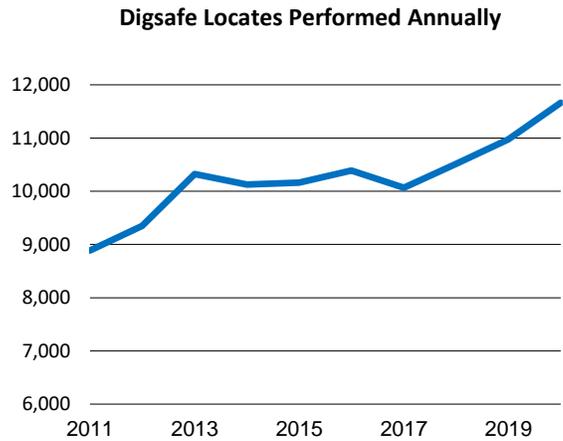
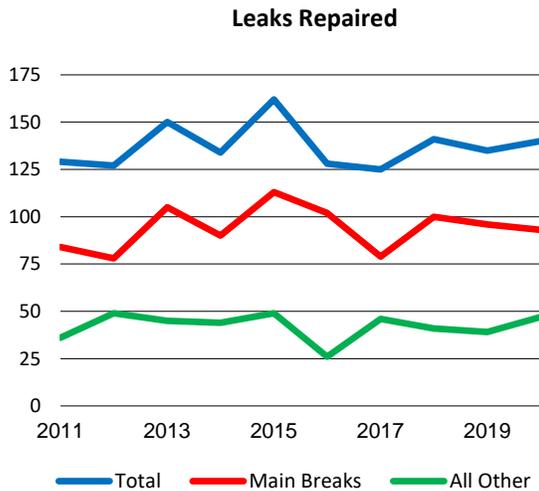
Water Operations has a five-person group (Administration Group- A1; **green** in organization chart) that directs, oversees and provides administrative support.



## Key Statistics



Water Supply	Surface – 99%
	Groundwater -1%
Water Treatment	Ozone, Ultraviolet, Chloramination, Corrosion Control, Fluoridation
Water Mains	1011.3 miles
Valves	12,033
Hydrants	5,197
Service Lines	56,114
Water Storage	10 (+2 non-active)
Booster Stations	6
Backflow Devices	4,980



- Leaks repaired each year vary by number/severity of leaks and is a significant budgetary variable.
- Digsafe locates include marking of water and wastewater infrastructure for others who are working near our assets.

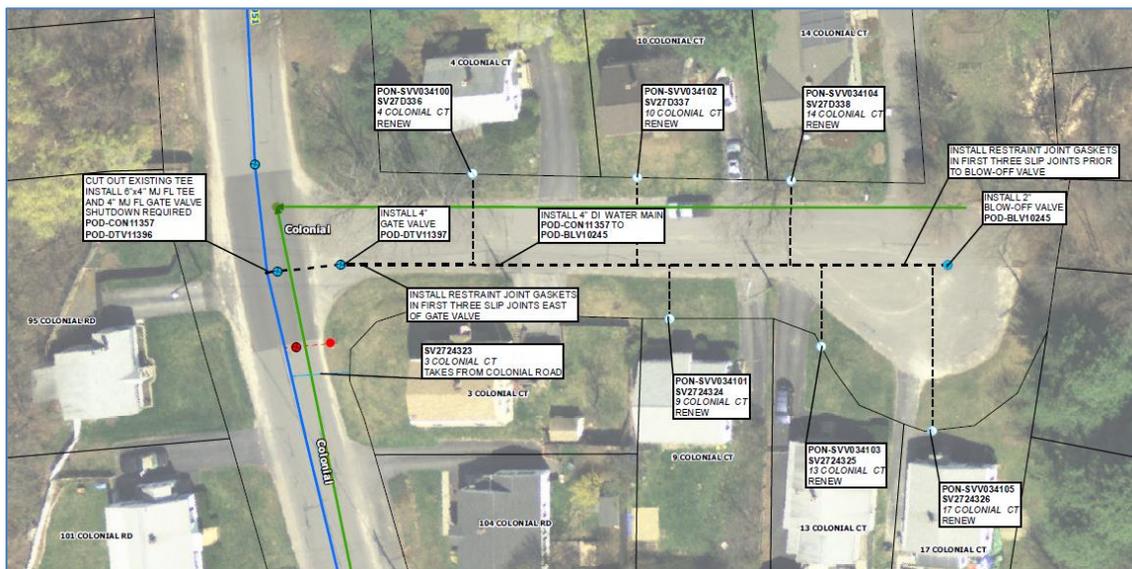
## Performance Benchmarks

	2020 Actual	2021 Projected	2022 Goal
<b>Corporate Goal – Public Health</b>			
Compliance of Water Regulations	100%	100%	100%
95% of Distribution System Chlorine Residuals	0.50 mg/l	0.50 mg/l	> 0.50 mg/l
<b>Corporate Goal – Public Safety</b>			
Meeting with Municipal Fire Chiefs	0	0	2
Hydrant Outage Index	4.0	3.0	3.0
<b>Corporate Goal – Reliability</b>			
Water Outage Index	19.7	< 20	< 20
Leaks per 100 mile of main	9.3	< 10	< 10
Transmission valves exercised	294	425	425
Distribution valves exercised	26	50	100
Customer Appointments On-time	99.9%	100%	100%
<b>Corporate Goal – Affordability</b>			
Water Facility Maintenance Ratio	66% / 34%	75% / 25%	75% / 25%
Department Cost / million gal	\$1,107	\$1,197	\$1,211
Treatment Cost / million gal	\$297	\$331	\$335
Unaccounted for Water %	14.2%	14.5%	14.0%
<b>Corporate Goal – Employees and Work Environment</b>			
Employee Training Hours	85	80	80

## Past Accomplishments

### Water Field (A2 and A6)

- Operational staff continued to stay focused on maintenance initiatives and backlog work in 2021. Project work load remained focused on high priority commitments due to challenges with staffing.
- High priority water main renewal project on Colonial Court, Portland. Operations initiated this 4" ductile iron replacement due to 16 leaks on a short section of water main. Operations has a goal to replace 2-3 high priority small diameter water mains that are not part of larger road construction projects each year.



- Highway widening impacts to transmission main crossings and coordination with Maine Turnpike Authority (MTA)
  - Wyman Simpson is under contract to extend the vault around the 42" water main north of Westbrook St crossing, and the vault around the 42" water main north of Rand Rd.
  - Barron Center water main is being impacted by the widening work and will be replaced by Grondin.
  - Operations will need to supply significant resources to shutdown these transmission mains for the project.
- 2021 Paving update - DOT projects began early in the year and municipal paving started up after July 1. So far to date (8/26), approx. 300 valve boxes have been adjusted/replaced.
- Water Operations has added 8 new Water System Operators, 2 Equipment Operators, and 1 Distribution System Foreperson in 2021. Keeping up with operational commitments during this time has proven difficult due to staff turnover, lack of employee experience and licensing.

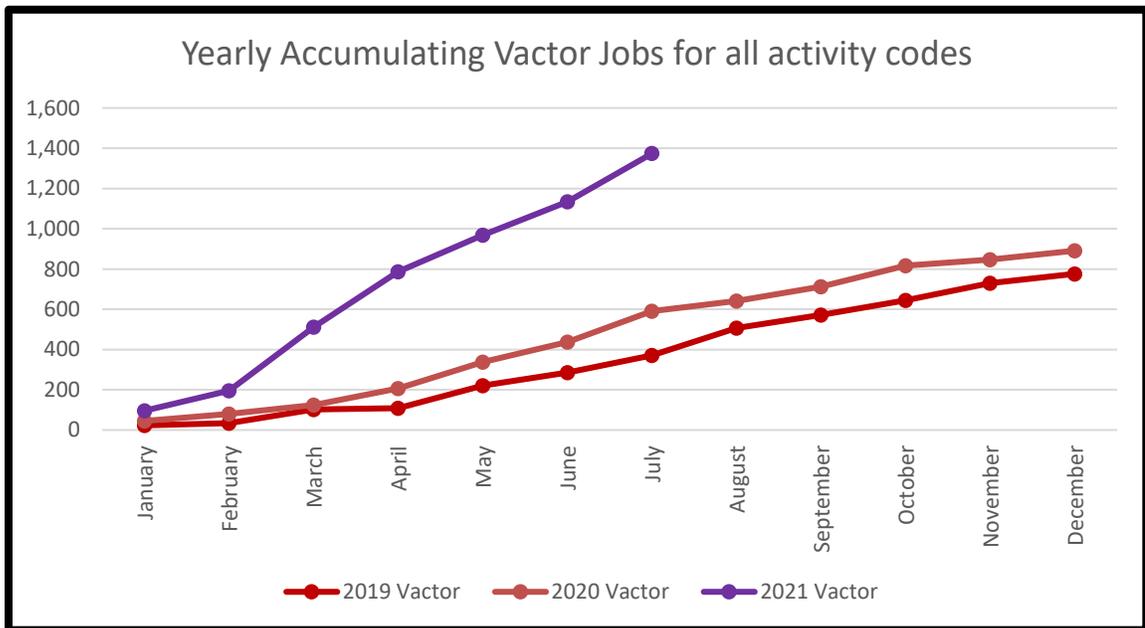
## Past Accomplishments (continued)

### Water Field (A2 and A6 continued)

PWD’s new large vacuum excavator in use on Center Street in Portland



- Vacuum excavation continues to prove to be a very efficient and cost effective method to tackle some of our maintenance work. Despite the staffing challenges we faced in 2021 Operations was able to keep up with critical work. The graph highlights that by July 2021 staff had performed more vacator jobs than the previous 2 years combined. This is in large part due to the new larger traileered unit that was purchased in 2020. The larger unit reduces the time spent excavating and is able to tackle more difficult situations.



## Past Accomplishments (continued)

### Water Field (A2 and A6 continued)

- The Utility Services department has had a busy year even though some of the work was shut down due to COVID-19. Even after slowing some of the workload because of the pandemic the Utility Specialists have still completed a large amount of work. Below is a glimpse of year to date statistics as of August 2021 for this department.
  - Work Requests – 14,667 COMPLETED
    - Dig Safe Locates – YTD 9,812
    - Water Quality Inquiries – 131 COMPLETED
  - Work Orders – 19,166 COMPLETED
- Meter Testing Program



OMNI Meter



V2 water meter tester

- We have tested 31 meters to date. Goals and effort in 2021 include:
  - Focus on high usage accounts. Once tested these meters would remain on a regularly scheduled rotation to be tested depending on the size of the meter.
  - Continue to optimize testing methods and procedures. Installation of a dedicated line helped with low flow testing and pressure fluctuations.
  - All 3” and 4” meters are being tested at PWD. Larger meters will continue to be sent to the manufacturer for testing and calibration. PWD test bench only allows up to 4” meters to be tested but that covers the majority of our meters.
- Leak survey program was kicked off in 2021. Target areas were identified and methods developed to try to find leaks that may not be surfacing. The program will initially focus on bridge crossings and other road crossings where leaks go unnoticed for some time.

## Past Accomplishments (continued)

### Water Plant (A3)

- Zero reportable accidents or lost time injuries.
- Met all Primary and Secondary water treatment regulations associated to the Surface Water Treatment Rules, including 100% compliance with Ozone treatment requirements, and >99.99% (95% compliance required) compliance with UV treatment rules associated to Long Term 2 Enhanced Surface Water Treatment Regulations.
- Steep Falls System: As defined by PWD’s “reduced monitoring” status requiring Lead and Copper Rules (LCR) samples to be collected and tested every three years. LCR were collected in 2021 and the results indicated that Steep Falls distribution system water remains well below the “Action Level” for lead (15 PPB AL) and copper MCL (1.3 mg/L AL).
- Continued to see improvement in distribution water quality, especially at longer residence TCR sample sites, as evident by PWD’s ability to meet 5<sup>th</sup> and 10<sup>th</sup> percentile goals for chlorine residual.

- A Catalytic Convertor was installed on the Sebago Lake Water Treatment Facility (SLWTF) standby generator #1 in 2020. The installation gives the SLWTF Operations group the ability to “go off the grid” and generate power during “Demand Response Events” and “Forward Capacity Peak Annual Hour” events to save significantly on the plant’s power bill.



- Water Quality Goals for pH of all TCR samples collected were met with, pH median and 10<sup>th</sup> percentile were also met in 2020 and so far (as of late August) in 2021. PWD also achieved a pH median of 7.8 in 2020 and so far in 2021 (goal: 7.6), and a pH 10<sup>th</sup> percentile of 7.6 in the same timeframe. This is an important achievement because maintaining pH values in these ranges goes a long ways toward insuring PWD’s continued compliance with the Lead and Copper Rule.

## Past Accomplishments (continued)

### Water Plant (A3 continued)

- Predictive Maintenance  
Diagnostics' annual vibration analysis identified a significant issue with raw water pump #1. Trask Machinery, of Scarborough, was contracted to completely rebuild the pump and motor. This project was completed in May 2021. Raw Water Pump #1 placed back into service, and subsequently tested via vibration analysis to confirm satisfactory rebuild results.



- Working with the engineers of Woodard and Curran, the SCADA programming for the use of sodium hypochlorite dosing as a backup to ozone to achieve 4-log virus removal was completed and the logic was tested successfully. This important backup mode of emergency operation will provide a backup in the event of a catastrophic failure of a necessary component in the complex ozone generation system, or the inability to secure liquid oxygen, which has occurred in other parts of the country in these uncertain time. While in the backup mode, PWD will still be compliant with all Primary and Secondary treatment regulations.
- Members of each area of Water Services participated in an emergency pumper exercise on Route 202 near the Mountain Division Trail in 2020.



## 2022 Projects and Initiatives

### Corporate Goal – Public Health

- Corporate Initiative
  - Continuously improve and protect water quality in the Distribution System, using guidelines and action plans developed through the AWWA Partnership for Safe Water (PSW) for Distribution Systems.
- Departmental Initiatives
  - Continue to meet 100% of all Primary and Secondary Surface Water Treatment Rules.

### Corporate Goal – Reliability

- Corporate Initiative
  - Work with the selected Engineer, Hazen & Sawyer, to move forward with the design and build project of replacing the Windham Center Tank. The existing 200,000 gallon tank was identified by the CWSSP study as being undersized and the elevated tank has long since outlived its useful life. This project will replace the water storage facility with a 1 million gallon standpipe that should meet the water demand of the Windham Center community for many years to come, as well as provide adequate fire flows and eventually backup for the Gorham 407 boosted pressure zone.
- Departmental Initiatives
  - Continue training on the vector equipment and increase efficiencies to support a reduction in backlog maintenance work.
  - Extend Right-of-Way Maintenance Program into the more developed areas; initiate tracking of current conditions and make plans to repair significant deficiencies. Maintain areas that have already been cleared.
  - Continue to develop emergency pumper locations, to provide redundant pumping capability for each boosted-pressure zone. Continue to replace 1-2 transmission valves >16" each year.

Planning to replace three 30" valves on Elizabeth St. in Portland during 2022.



## 2022 Projects and Initiatives (continued)

### Corporate Goal – Affordability

- Departmental Initiatives
  - Test at least 50 large water meters, meters that are 3” in diameter and larger, during 2022, while ensuring accuracy of the testing. Consider changes to terms and conditions to compel large customers to accommodate timely testing and meter changes.

### Corporate Goal – Employees and Work Environment

- Corporate Initiatives
  - Maintain an average of 80 hours of training per employee
- Departmental Initiatives
  - In 2022, PWD will move forward with an initiative to bring the Standish Tank in line with current OSHA fall protection standards, which will include a new ladder with a proper fall arrest device, and a guard rail encompassing the circumference of the top of the tank.
  - Active staff participation in safety initiatives, such as a District wide effort to train employees on Confined Space Entry.

### Pressure Sustaining Valve on Tuttle Road at Middle Road in Cumberland

This valve opens to supply water from the Cumberland Foreside area when there is low pressure in Cumberland Center.

This back-up supply option does not maintain normal pressure. However, it will allow customers to have some water and reduces the chance of PWD needing to issue a boil water order.



## Financial Overview

The Water Services Budget for 2022 has increased 2.0% or \$187,365. The majority of the increases are in the areas of contracted services, heat/fuel oil, materials and supplies, and purchased power.

**A1** – The Water Administration area increased 0.8% or \$4,788. Reductions in total employee benefits offset most of the increases in wages and data lines.

**A2** – The Water Transmission & Distribution budget is up by 2.2% or \$97,686. A large portion is due to material and vendor increases expected for 2022. Traffic control represents the most significant increase. More jobs require police cruisers during construction to keep job sites safe. Emergency contractor support continues to be a challenge. It has been difficult to secure any support from contractors throughout the year. Operations staff is having to perform the work leading to increased overtime or off hours scheduling problems. Training numbers are also expected to increase in 2022 as there was significant turnover in 2021. These new hires need licenses to meet the requirements of their jobs and many of the applicants we see do not have them.

**A3** – Overall, the requested Water Treatment 2022 Budget increased by 2.2% or \$56,851. A portion of that increase (\$25,000 or 3%) is attributable to projected salary and wage increases. Water treatment chemicals will actually see a 4.9% budget decrease. The decrease is related to a favorable contract negotiated with our new Liquid Oxygen supplier, Maine Oxy, who were able to meet PWD's strict product specifications. The sodium hypochlorite, according to market projections, is anticipated to see a cost decrease of 10%. The anticipated increases in other liquid chemicals, which are driven by increased transportation and labor costs, range from 3.5% for zinc orthophosphate, to 20% for Hydrofluorosilicic acid (fluoride). Contracted Services will increase by 6.1%, or \$14,607, with the increase associated to expanding contracted snow removal services to include the Sebago Lake Water Treatment Facility. The cost of heating our facilities will also increase by 22.9% (\$19,420) in 2022, with the increase for fuel again directly attributable to increased transportation and labor costs. Overall, the A3 power budget will increase by about 9.7% or \$35,091. The majority of the increase in the T&D portion of the power bill is due to an approx. 25% increase in transmission rates, regulated by the Federal Energy Regulatory Commission (FERC). The rest is a combination of an increase in distribution rates to recover storm costs and a slight increase in demand. The budget for medium sized accounts was offset by reductions in demand and the Cumberland Booster station changing from a medium to small account.

**A6** – The Utility Services 2022 budget is increasing by \$28,040 or 1.6%. Increased expenses in wages (\$25,753) are significantly offset by a reduction in total expense of benefits (-\$21,828.) Other significant increases are in transportation (\$13,997) and the Tele/Other Utilities is increasing due to more data lines related to the implementation of the new asset management system.

**Water Services: Total****Financial Summary:**

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Sub-Group:</b>						
A1 - Water Administration	\$538,579	\$280,981	\$572,038	\$576,826	4,788	0.8%
A2 - Wtr Transmission/Distrib	4,215,672	2,019,875	4,358,269	4,455,955	97,686	2.2%
A3 - Water Treatment	2,310,328	1,227,135	2,557,695	2,614,546	56,851	2.2%
A6 - Water Utility Services	1,572,268	818,698	1,774,053	1,802,093	28,040	1.6%
<b>Grand Total</b>	<b>8,636,847</b>	<b>4,346,688</b>	<b>9,262,055</b>	<b>9,449,420</b>	<b>187,365</b>	<b>2.0%</b>
<b>Expense Type:</b>						
Salaries & Wages	\$3,392,791	\$1,773,933	\$3,604,352	\$3,623,614	19,262	0.5%
Employee Benefits	1,411,820	782,052	1,597,507	1,490,069	(107,438)	-6.7%
Chemicals	460,938	208,402	496,347	472,209	(24,138)	-4.9%
Contracted Services	1,575,012	678,068	1,522,133	1,735,240	213,107	14.0%
Heat/Fuel Oil	89,195	52,130	84,863	104,283	19,420	22.9%
Insurance	25,419	13,612	26,150	29,946	3,796	14.5%
Materials & Supplies	589,156	265,703	641,163	673,584	32,421	5.1%
Other Expense	39,680	18,351	72,164	77,784	5,620	7.8%
Purchased Power	345,091	173,905	362,774	397,865	35,091	9.7%
Regulatory/Taxes	1,056	100	781	781	0	0.0%
Tele/Other Utilities	80,985	45,176	84,300	91,005	6,705	8.0%
Transportation	625,702	335,258	769,521	753,040	(16,481)	-2.1%
<b>Grand Total</b>	<b>8,636,847</b>	<b>4,346,688</b>	<b>9,262,055</b>	<b>9,449,420</b>	<b>187,365</b>	<b>2.0%</b>
<b>Headcount:</b>						
Full Time	56	56	56	56	0	0.0%
Part Time	0	0	0	0	0	n/a
<b>Total</b>	<b>54</b>	<b>56</b>	<b>56</b>	<b>56</b>	<b>0</b>	<b>0.0%</b>

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Salaries &amp; Wages</b>						
660111 - SALARIES/WAGES NON-UNION	\$601,423	\$309,017	\$609,932	\$626,599	\$16,667	2.7%
660121 - WAGES/REGULAR UNION	2,243,395	1,175,792	2,376,574	2,359,681	(16,893)	-0.7%
660122 - WAGES/OVERTIME UNION	324,730	185,678	362,732	369,233	6,501	1.8%
660123 - WAGES/DOUBLETIME UNION	39,350	23,910	48,070	50,005	1,935	4.0%
660124 - WAGES/STANDBY TIME UNION	130,186	69,965	139,844	143,696	3,852	2.8%
660131 - WAGES - REGULAR - TEMPS	-	9,571	67,200	74,400	7,200	10.7%
66014 - VACATION ACCRUAL	41,728	-	-	-	-	n/a
66015 - SICKTIME ACCRUAL	11,981	-	-	-	-	n/a
<b>Salaries &amp; Wages Total</b>	<b>3,392,791</b>	<b>1,773,933</b>	<b>3,604,352</b>	<b>3,623,614</b>	<b>19,262</b>	<b>0.5%</b>
<b>Employee Benefits</b>						
660401 - FICA - EMPLOYERS' SHARE	255,276	134,247	275,735	277,212	1,477	0.5%
660405 - SAFETY/WHY PROGRAM ITEMS	12,720	4,063	16,750	17,575	825	4.9%
660411 - MEALS ALLOWANCE	10,790	6,800	9,450	10,450	1,000	10.6%
660413 - PWD TRAINING PROGRAM	1,004	-	-	-	-	n/a
660418 - STIPENDS	4,500	3,800	5,300	4,300	(1,000)	-18.9%
660419 - EMPLOYEE BENEFITS-MISC OTH	10,516	1,096	8,200	10,200	2,000	24.4%
660491 - FRINGE BENEFITS-REG/SAL	1,117,014	632,045	1,282,072	1,170,332	(111,740)	-8.7%
<b>Employee Benefits Total</b>	<b>1,411,820</b>	<b>782,052</b>	<b>1,597,507</b>	<b>1,490,069</b>	<b>(107,438)</b>	<b>-6.7%</b>
<b>Chemicals</b>						
66181 - AMMONIA	23,623	11,253	22,730	23,836	1,106	4.9%
66182 - CAUSTIC SODA	75,728	36,215	85,332	93,385	8,053	9.4%
66183 - FLUORINE COMPOUND	31,534	18,877	37,562	45,084	7,522	20.0%
66184 - ZINC ORTHOPHOSPHATE	68,262	32,860	76,966	79,694	2,728	3.5%
66185 - SODIUM HYPOCHLORITE	170,265	76,099	182,077	162,635	(19,442)	-10.7%
661892 - LIQUID OXYGEN (LOX)	91,218	33,098	91,680	67,575	(24,105)	-26.3%
661899 - OTHER CHEMICALS	309	-	-	-	-	n/a
<b>Chemicals Total</b>	<b>460,938</b>	<b>208,402</b>	<b>496,347</b>	<b>472,209</b>	<b>(24,138)</b>	<b>-4.9%</b>
<b>Contracted Services</b>						
6631 - ENGINEERING SERVICES	-	-	6,000	6,000	-	0.0%
663521 - TRAFFIC CONTROL	189,927	71,593	82,000	148,000	66,000	80.5%
6635221 - PAVING - MINOR REPAIR	463,377	263,945	526,000	526,000	-	0.0%
663523 - SIDEWALK	13,811	2,610	18,500	18,500	-	0.0%
663524 - STREET OPENING	66,429	18,612	61,100	65,100	4,000	6.5%
663525 - CONTRACTOR CONSTRUCTION	655,877	169,282	541,500	667,500	126,000	23.3%
663527 - EMERGENCY RESPONSE- FEMA	450	450	-	-	-	n/a
66353 - REPAIR SERVICES	14,529	44,047	17,000	17,000	-	0.0%
66354 - MAINTENANCE SERVICES	71,864	37,442	157,352	158,775	1,423	0.9%
663542 - LARGE METER TESTING	8,946	8,702	10,000	12,500	2,500	25.0%
663546 - MAINTENANCE - SNOW REMOVL	44,916	24,436	45,860	60,135	14,275	31.1%
663561 - COMPUTER LICENSES	17,208	25,318	28,031	28,180	149	0.5%
663574 - DISPOSAL SERVICES	2,678	865	6,990	5,750	(1,240)	-17.7%
663587 - COURIER SERVICES	2,326	1,134	2,300	2,300	-	0.0%
663588 - EQUIPMENT MAINTENANCE	14,097	3,292	13,500	13,500	-	0.0%
663594 - DIGSAFE	500	500	-	-	-	n/a
6635982 - TREE TRIMMING / REMOVAL	-	-	5,000	5,000	-	0.0%
663599 - MISC OTHER SERVICES	196	2,591	1,000	1,000	-	0.0%
6636 - TECHNICAL SERVICES	-	3,250	-	-	-	n/a
663522 - PAVING	7,881	-	-	-	-	n/a
<b>Contracted Services Total</b>	<b>1,575,012</b>	<b>678,068</b>	<b>1,522,133</b>	<b>1,735,240</b>	<b>213,107</b>	<b>14.0%</b>

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Heat/Fuel Oil</b>						
66161 - HEATING OIL	\$66,440	\$34,841	\$61,050	\$76,455	\$15,405	25.2%
661622 - CONTAINER DELIVERED	22,756	17,289	23,813	27,828	4,015	16.9%
<b>Heat/Fuel Oil Total</b>	<b>89,195</b>	<b>52,130</b>	<b>84,863</b>	<b>104,283</b>	<b>19,420</b>	<b>22.9%</b>
<b>Insurance</b>						
66592 - DAMAGES & CLAIMS-GOODWILL	784	-	-	-	-	n/a
66599 - PROPERTY & BOILER INSUR	24,636	13,612	26,150	29,946	3,796	14.5%
<b>Insurance Total</b>	<b>25,419</b>	<b>13,612</b>	<b>26,150</b>	<b>29,946</b>	<b>3,796</b>	<b>14.5%</b>
<b>Materials &amp; Supplies</b>						
6619 - ASSET PURCHASES	35,032	11,571	73,825	67,325	(6,500)	-8.8%
662012 - CRUSHED GRAVEL	436	-	1,750	1,750	-	0.0%
662014 - CRUSHED STONE	381	238	-	500	500	n/a
662016 - SAND	-	-	3,820	3,820	-	0.0%
662017 - SAND AND SALT	900	1,309	3,452	3,452	-	0.0%
662018 - BANKRUN GRAVEL	765	361	2,000	2,000	-	0.0%
662019 - GRAVEL - TYPE A (DOT)	1,353	-	2,000	2,000	-	0.0%
66202 - TOOLS	6,718	7,566	25,850	26,100	250	1.0%
66203 - VENDOR PURCHASED SUPPLIES	138,756	41,437	91,444	93,344	1,900	2.1%
662041 - MATERIALS INVENTORY	176,398	95,867	169,380	191,130	21,750	12.8%
662042 - SUPPLIES INVENTORY	58,099	35,655	44,200	45,400	1,200	2.7%
66204201 - INVENTORY - QPR	834	746	2,500	1,400	(1,100)	-44.0%
66204202 - INVENTORY - BNKRUN GRAVEL	14,423	10,635	14,500	16,000	1,500	10.3%
66204203 - INVENTORY - CRUSHD GRAVEL	7,233	1,145	18,750	13,250	(5,500)	-29.3%
66204204 - INVENTORY - CRUSHED STONE	2,804	2,073	2,250	2,250	-	0.0%
66204205 - INVENTORY - LOAM	1,674	(328)	1,250	1,250	-	0.0%
66204206 - INVENTORY - TYPE A GRAVEL	23,965	15,829	20,000	28,500	8,500	42.5%
662043 - TOOL INVENTORY	57,217	39,204	65,050	68,050	3,000	4.6%
66204301 - INVENTORY - TONER	-	89	-	-	-	n/a
66204303 - INVENTORY-COMPUTER EQUIP	2,465	582	950	850	(100)	-10.5%
662044 - METER INVENTORY	(1,543)	(22,367)	6,100	5,750	(350)	-5.7%
662046 - HYDRANT INVENTORY	52,566	20,513	61,500	61,000	(500)	-0.8%
662047 - GARAGE INVENTORY	3,269	1,888	3,900	3,900	-	0.0%
66205 - CONSUMABLE SUPPLIES	2,094	756	7,450	6,250	(1,200)	-16.1%
66206 - COMPUTER RELATED EQUIP	3,318	712	19,242	28,313	9,071	47.1%
662015 - LOAM	-	222	-	-	-	n/a
<b>Materials &amp; Supplies Total</b>	<b>589,156</b>	<b>265,703</b>	<b>641,163</b>	<b>673,584</b>	<b>32,421</b>	<b>5.1%</b>

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Other Expense</b>						
6641 - BUILDING/REAL PROP RENT	-	-	6,600	-	(6,600)	-100.0%
6642 - EQUIPMENT RENT	15,646	1,200	12,190	14,690	2,500	20.5%
6675111 - INSTATE TRAINING/CONF	31,816	19,455	36,155	46,485	10,330	28.6%
6675112 - OUT OF STATE TRAINING/CON	-	-	9,000	11,000	2,000	22.2%
667513 - DUES	1,000	1,000	1,950	1,950	-	0.0%
667514 - PROFESSIONAL LICENSES	1,290	812	4,595	3,335	(1,260)	-27.4%
667515 - PERIODICAL SUBSCRIPTIONS	120	-	100	100	-	0.0%
667521 - POSTAGE - THIRD PARTY	986	2,563	4,378	4,378	-	0.0%
667522 - POSTAGE - INTERNAL	47	100	100	250	150	150.0%
667523 - POSTAGE - EXPRESS DELIVER	89	108	200	200	-	0.0%
667531 - PRINTING COSTS	5,510	3,318	8,676	8,676	-	0.0%
667554 - EPA / OSHA COMPLIANCE	871	-	-	-	-	n/a
667555 - SAFETY EXPENSES	5,890	1,587	14,220	12,720	(1,500)	-10.5%
667556 - FREIGHT CHARGES (STOCK)	-	24	-	-	-	n/a
667592 - FOOD SUPPLIES	1,147	234	460	460	-	0.0%
667599 - OTHER MISCELLANEOUS	1,729	799	-	-	-	n/a
6676 - EXPENSE OFFSET	(26,460)	(13,230)	(26,460)	(26,460)	-	0.0%
667511 - TRAINING & CONFERNCES	-	380	-	-	-	n/a
<b>Other Expense Total</b>	<b>39,680</b>	<b>18,351</b>	<b>72,164</b>	<b>77,784</b>	<b>5,620</b>	<b>7.8%</b>
<b>Purchased Power</b>						
66151 - POWER - LARGE ENERGY	122,310	87,583	163,482	158,671	(4,811)	-2.9%
66152 - POWER - LARGE T&D	93,172	39,430	99,411	130,383	30,972	31.2%
66153 - POWER - MEDIUM ENERGY	42,924	18,843	38,836	37,141	(1,695)	-4.4%
66154 - POWER - MEDIUM T&D	38,342	17,876	40,361	43,911	3,550	8.8%
66155 - POWER - SMALL ENERGY	11,810	5,274	11,819	13,335	1,516	12.8%
66156 - POWER - SMALL T&D	15,738	6,874	16,621	21,924	5,303	31.9%
66157 - POWER - OTHER CHARGES	27,639	-	-	-	-	n/a
66158 - LOAD RESPONSE	(7,579)	(1,975)	(7,756)	(7,500)	256	-3.3%
66159 - POWER - CAPACITY	734	-	-	-	-	n/a
<b>Purchased Power Total</b>	<b>345,091</b>	<b>173,905</b>	<b>362,774</b>	<b>397,865</b>	<b>35,091</b>	<b>9.7%</b>
<b>Regulatory/Taxes</b>						
667516 - PERMITS	615	100	781	781	-	0.0%
667518 - REGULATORY REQUIRED FEES	441	-	-	-	-	n/a
<b>Regulatory/Taxes Total</b>	<b>1,056</b>	<b>100</b>	<b>781</b>	<b>781</b>	<b>-</b>	<b>0.0%</b>
<b>Tele/Other Utilities</b>						
66101 - WATER	4,276	2,393	4,250	4,275	25	0.6%
66102 - WASTEWATER	13,756	4,150	16,950	17,000	50	0.3%
66103 - STORMWATER CHARGES	32	(972)	-	-	-	n/a
66111 - TELEPHONE LINES	5,500	1,150	4,920	4,920	-	0.0%
66112 - DATA LINES	42,269	32,561	41,880	50,890	9,010	21.5%
66113 - CELLULAR PHONES	15,153	5,893	16,300	13,920	(2,380)	-14.6%
<b>Tele/Other Utilities Total</b>	<b>80,985</b>	<b>45,176</b>	<b>84,300</b>	<b>91,005</b>	<b>6,705</b>	<b>8.0%</b>
<b>Transportation</b>						
66501 - TRANSPORTATION - INTERNAL	355,133	212,313	494,309	442,180	(52,129)	-10.5%
665019 - TRANS INTERNAL INACTIVE	249,658	112,314	231,756	284,378	52,622	22.7%
66502 - TRANSPORTATION - EXTERNAL	18,362	9,631	39,350	22,550	(16,800)	-42.7%
66503 - MILEAGE REIMBURSEMENT	2,549	999	4,106	3,932	(174)	-4.2%
<b>Transportation Total</b>	<b>625,702</b>	<b>335,258</b>	<b>769,521</b>	<b>753,040</b>	<b>(16,481)</b>	<b>-2.1%</b>
<b>Grand Total</b>	<b>8,636,847</b>	<b>4,346,688</b>	<b>9,262,055</b>	<b>9,449,420</b>	<b>187,365</b>	<b>2.0%</b>

**Water Services: Water Administration (A1)****Financial Summary:**

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$360,248	\$185,962	\$373,465	\$383,568	\$10,103	2.7%
Employee Benefits	168,765	91,696	186,837	177,846	-8,991	-4.8%
Materials & Supplies	621	172	4,500	5,075	575	12.8%
Other Expense	4,568	1,395	4,750	7,095	2,345	49.4%
Tele/Other Utilities	4,315	1,757	1,980	2,910	930	47.0%
Transportation	61	0	506	332	-174	-34.4%
<b>Grand Total</b>	<b>538,579</b>	<b>280,981</b>	<b>572,038</b>	<b>576,826</b>	<b>4,788</b>	<b>0.8%</b>
<b>Programs:</b>						
96 - Pandemic Costs	\$303	\$0	\$0	\$0	\$0	n/a
98 - Training	17,412	9,555	26,623	28,936	2,313	8.7%
99 - Administration	520,864	271,427	545,415	547,890	2,475	0.5%
<b>Grand Total</b>	<b>538,579</b>	<b>280,981</b>	<b>572,038</b>	<b>576,826</b>	<b>4,788</b>	<b>0.8%</b>
<b>Funds:</b>						
20 - Water General	\$538,579	\$280,981	\$572,038	\$576,826	\$4,788	0.8%
<b>Grand Total</b>	<b>538,579</b>	<b>280,981</b>	<b>572,038</b>	<b>576,826</b>	<b>4,788</b>	<b>0.8%</b>
<b>Headcount:</b>						
Full-Time	5	5	5	5	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>0</b>	<b>0.0%</b>

## Water Services: Water Transmission/Distribution (A2)

### Financial Summary:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$1,355,951	\$725,741	\$1,435,799	\$1,394,319	-\$41,480	-2.9%
Employee Benefits	548,323	305,056	616,430	557,128	-59,302	-9.6%
Contracted Services	1,419,846	550,254	1,260,050	1,456,050	196,000	15.6%
Insurance	784	0	0	0	0	n/a
Materials & Supplies	398,126	177,304	409,922	436,622	26,700	6.5%
Other Expense	35,744	17,828	44,450	50,350	5,900	13.3%
Regulatory/Taxes	615	0	0	0	0	n/a
Tele/Other Utilities	9,308	3,021	10,780	10,680	-100	-0.9%
Transportation	446,976	240,671	580,838	550,806	-30,032	-5.2%
<b>Grand Total</b>	<b>4,215,672</b>	<b>2,019,875</b>	<b>4,358,269</b>	<b>4,455,955</b>	<b>97,686</b>	<b>2.2%</b>

<b>Programs:</b>						
1 - Seasonal Mains	\$110,905	\$59,214	\$133,821	\$139,635	\$5,814	4.3%
10 - General Distribution	158,970	84,909	299,560	277,471	-22,089	-7.4%
11 - Mains & Valves Maint	1,654,402	891,679	1,573,512	1,631,707	58,195	3.7%
12 - Services Maintenance	562,565	317,466	768,911	690,374	-78,537	-10.2%
15 - Digsafe Locates	20	0	0	0	0	n/a
17 - Hydrant Mainenance	178,403	83,493	243,216	214,966	-28,250	-11.6%
2 - Meter Reading	151	0	6,187	902	-5,285	-85.4%
20 - Meter Service	522	0	0	0	0	n/a
34 - Distribution Maintenance	179	0	0	0	0	n/a
4 - Paving (Mains)	492,943	82,205	256,181	453,887	197,706	77.2%
44 - WW Pumping	0	0	6,822	1,871	-4,951	-72.6%
45 - WW Treatment	80	0	2,795	1,387	-1,408	-50.4%
90 - Vehicles	36,906	19,934	48,509	44,129	-4,380	-9.0%
91 - Snow Removal	9,379	4,433	44,900	34,091	-10,809	-24.1%
92 - Bulk Materials Adjustmei	0	0	2,500	2,500	0	0.0%
96 - Pandemic Costs	74,275	68	0	0	0	n/a
98 - Training	86,683	55,048	133,640	123,131	-10,509	-7.9%
99 - Administration	849,290	421,427	837,715	839,904	2,189	0.3%
<b>Grand Total</b>	<b>4,215,672</b>	<b>2,019,875</b>	<b>4,358,269</b>	<b>4,455,955</b>	<b>97,686</b>	<b>2.2%</b>

<b>Funds:</b>						
10 - General	\$46,957	\$24,366	\$93,409	\$78,220	-\$15,189	-16.3%
20 - Water General	4,155,031	1,987,099	4,248,524	4,367,710	119,186	2.8%
30 - Water Standish	13,604	8,410	6,719	6,767	48	0.7%
53 - WW Cumberland	0	0	2,733	1,572	-1,161	-42.5%
57 - WW Portland	80	0	6,286	1,088	-5,198	-82.7%
62 - WW Westbrook	0	0	299	299	0	0.0%
64 - WW Joint Westbrook	0	0	299	299	0	0.0%
<b>Grand Total</b>	<b>4,215,672</b>	<b>2,019,875</b>	<b>4,358,269</b>	<b>4,455,955</b>	<b>97,686</b>	<b>2.2%</b>

<b>Headcount:</b>						
Full-Time	24	24	24	24	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>24</b>	<b>0</b>	<b>0.0%</b>

## Water Services: Water Treatment (A3)

### Financial Summary:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$766,738	\$392,956	\$784,843	\$809,729	\$24,886	3.2%
Employee Benefits	308,019	173,930	353,917	336,600	-17,317	-4.9%
Chemicals	460,938	208,402	496,347	472,209	-24,138	-4.9%
Contracted Services	128,001	114,166	238,583	253,190	14,607	6.1%
Heat/Fuel Oil	89,195	52,130	84,863	104,283	19,420	22.9%
Insurance	24,636	13,612	26,150	29,946	3,796	14.5%
Materials & Supplies	114,583	66,652	119,641	121,524	1,883	1.6%
Other Expense	-14,228	-9,337	-5,715	-7,215	-1,500	26.2%
Purchased Power	345,091	173,905	362,774	397,865	35,091	9.7%
Regulatory/Taxes	441	100	781	781	0	0.0%
Tele/Other Utilities	55,995	24,442	59,000	59,395	395	0.7%
Transportation	30,919	16,176	36,511	36,239	-272	-0.7%
<b>Grand Total</b>	<b>2,310,328</b>	<b>1,227,135</b>	<b>2,557,695</b>	<b>2,614,546</b>	<b>56,851</b>	<b>2.2%</b>
<b>Programs:</b>						
1 - Seasonal Mains	\$4	\$0	\$2,115	\$1,405	-\$710	-33.6%
11 - Mains & Valves Maint	584	1,176	2,406	2,131	-275	-11.4%
12 - Services Maintenance	0	10	746	730	-16	-2.1%
17 - Hydrant Mainenance	0	325	141	141	0	0.0%
18 - Water Treatment Maint	138,489	65,547	127,300	123,993	-3,307	n/a
2 - Meter Reading	0	0	141	141	0	0.0%
24 - Distribution Operations	293,508	145,495	318,820	342,853	24,033	7.5%
25 - Water Storage Maintenance	24,840	42,547	43,222	45,203	1,981	4.6%
28 - Monitoring	20	39	252	251	-1	-0.4%
34 - Distribution Maintenance	39,104	26,915	71,695	71,410	-285	-0.4%
45 - WW Treatment	0	0	96	98	2	2.1%
6 - Water Treatment	1,499,448	809,521	1,734,284	1,752,859	18,575	1.1%
94 - Technology Teams	0	0	189	3,759	3,570	1888.9%
96 - Pandemic Costs	12,126	3,250	0	2,809	2,809	n/a
98 - Training	50,517	20,578	47,535	55,400	7,865	16.5%
99 - Administration	251,688	111,732	208,753	211,363	2,610	1.3%
<b>Grand Total</b>	<b>2,310,328</b>	<b>1,227,135</b>	<b>2,557,695</b>	<b>2,614,546</b>	<b>56,851</b>	<b>2.2%</b>
<b>Funds:</b>						
20 - Water General	\$2,265,946	\$1,202,620	\$2,501,024	\$2,552,875	\$51,851	2.1%
30 - Water Standish	44,382	24,515	56,575	61,573	4,998	8.8%
57 - WW Portland	0	0	96	98	2	2.1%
<b>Grand Total</b>	<b>2,310,328</b>	<b>1,227,135</b>	<b>2,557,695</b>	<b>2,614,546</b>	<b>56,851</b>	<b>2.2%</b>
<b>Headcount:</b>						
Full-Time	11	11	11	11	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>11</b>	<b>0</b>	<b>0.0%</b>

**Water Services: Water Utility Services (A6)**

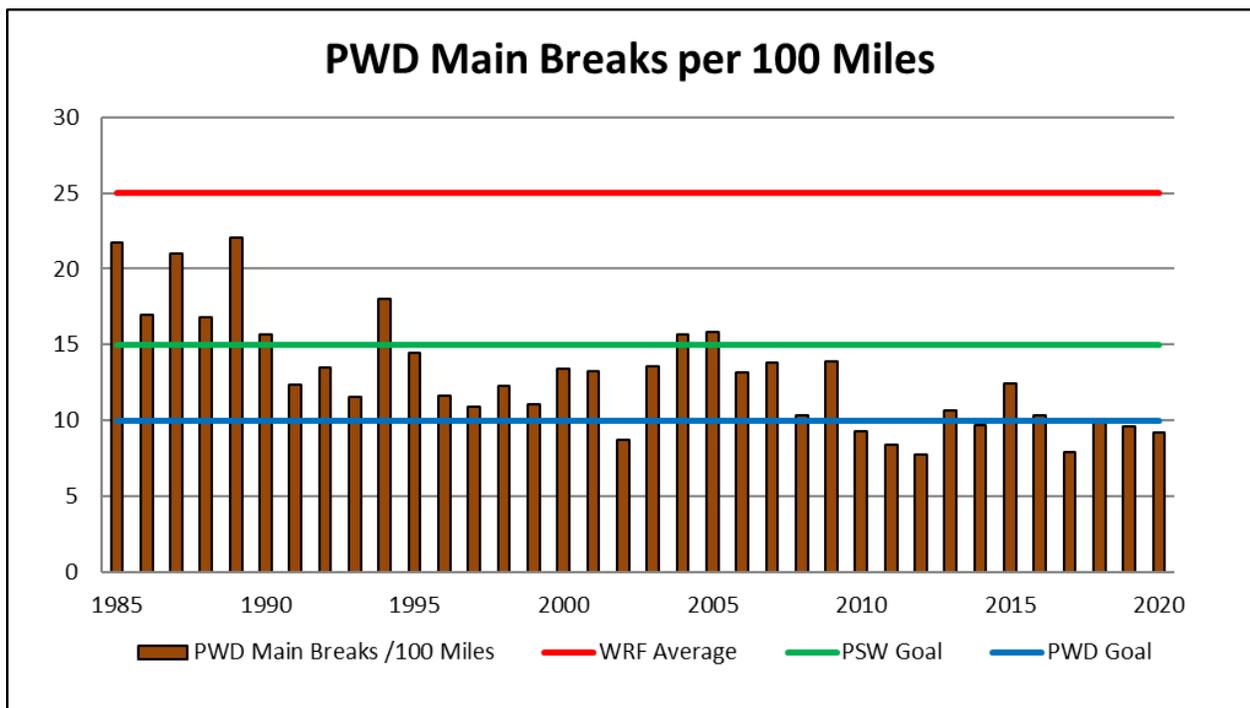
	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$909,854	\$469,273	\$1,010,245	\$1,035,998	\$25,753	2.5%
Employee Benefits	386,713	211,370	440,323	418,495	-21,828	-5.0%
Contracted Services	27,166	13,648	23,500	26,000	2,500	10.6%
Materials & Supplies	75,826	21,575	107,100	110,363	3,263	3.0%
Other Expense	13,595	8,464	28,679	27,554	-1,125	-3.9%
Tele/Other Utilities	11,368	15,956	12,540	18,020	5,480	43.7%
Transportation	147,747	78,411	151,666	165,663	13,997	9.2%
<b>Grand Total</b>	<b>1,572,268</b>	<b>818,698</b>	<b>1,774,053</b>	<b>1,802,093</b>	<b>28,040</b>	<b>1.6%</b>
<b>Programs:</b>						
1 - Seasonal Mains	\$64,286	\$24,593	\$62,737	\$61,405	-\$1,332	-2.1%
10 - General Distribution	67,379	50,360	63,115	69,393	6,278	9.9%
11 - Mains & Valves Maint	8,464	4,133	11,075	11,674	599	5.4%
12 - Services Maintenance	2,903	326	3,932	3,801	-131	-3.3%
14 - Distribution Flushing	78,409	39,524	93,222	100,865	7,643	n/a
15 - Digsafe Locates	245,553	139,746	256,294	265,955	9,661	3.8%
16 - Cross Connection	29,802	21,240	25,948	30,370	4,422	17.0%
17 - Hydrant Maintenance	115,354	86,907	152,521	156,025	3,504	2.3%
19 - Winter Hydrant Pump	40,273	2,119	66,336	68,631	2,295	3.5%
2 - Meter Reading	77,025	35,293	118,168	100,283	-17,885	-15.1%
20 - Meter Service	74,358	49,080	127,722	127,753	31	0.0%
21 - Large Meter Testing	12,387	-10,202	35,474	37,437	1,963	5.5%
22 - Meter Replacement Program	392	0	0	0	0	n/a
25 - Water Storage Maintenance	4	0	0	0	0	n/a
26 - Submeters	316	227	1,470	1,464	-6	-0.4%
3 - Leak Surveys	4,901	4,678	8,135	6,236	-1,899	-23.3%
31 - Vehicle Cleaning	1,617	1,459	3,772	3,758	-14	-0.4%
34 - Distribution Maintenance	81	34	0	0	0	n/a
4 - Paving (Mains)	188	0	0	0	0	n/a
7 - General Investigation	150,022	84,471	234,465	200,050	-34,415	-14.7%
76 - Collection	4,210	1,719	23,389	20,879	-2,510	-10.7%
90 - Vehicles	1,890	2,479	2,695	2,686	-9	-0.3%
94 - Technology Teams	4,857	8,516	0	1,674	1,674	n/a
96 - Pandemic Costs	38,143	0	0	1,405	1,405	n/a
98 - Training	75,142	39,767	92,306	96,598	4,292	4.6%
99 - Administration	474,314	232,231	391,277	433,751	42,474	10.9%
<b>Grand Total</b>	<b>1,572,268</b>	<b>818,698</b>	<b>1,774,053</b>	<b>1,802,093</b>	<b>28,040</b>	<b>1.6%</b>
<b>Funds:</b>						
10 - General	\$94,854	\$44,534	\$193,052	\$192,513	-\$539	-0.3%
20 - Water General	1,461,965	766,374	1,574,005	1,602,704	28,699	1.8%
30 - Water Standish	3,812	7,365	5,526	5,274	-252	-4.6%
51 - WW Cape Elizabeth	84	12	210	209	-1	-0.5%
53 - WW Cumberland	5,233	51	210	209	-1	-0.5%
55 - WW Windham LF	214	148	0	0	0	n/a
57 - WW Portland	156	0	420	419	-1	-0.2%
59 - WW South Portland	44	23	210	209	-1	-0.5%
61 - WW Gorham	5,426	0	210	347	137	65.2%
62 - WW Westbrook	410	95	210	209	-1	-0.5%
65 - WW Joint LF	50	49	0	0	0	n/a
66 - WW Peaks Island	22	46	0	0	0	n/a
<b>Grand Total</b>	<b>1,572,268</b>	<b>818,698</b>	<b>1,774,053</b>	<b>1,802,093</b>	<b>28,040</b>	<b>1.6%</b>
<b>Headcount:</b>						
Full-Time	16	16	16	16	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>0</b>	<b>0.0%</b>

## Water Services

A key determinant of Water Services budget is the number of water main breaks. Main breaks occur for a number of reasons, including age, pressure surges, and cold weather. The long-term trend indicates a declining number of leaks partially due to the capital investments made in prior years by targeting the replacement of aging pipes.

The Water Research Foundation (WRF) states that the average number of main breaks in North America is 25 breaks per 100 miles of main per year. The Partnership for Safe Water (PSW), a group supported by US EPA and the American Water Works Association, among others, recommends a goal of less than 15 main breaks per 100 miles of main per year. The Portland Water District (PWD) strives to meet a service level goal of 10 main breaks per 100 miles of main per year.

The operating budget assumes the typical number of main breaks in a year. As the chart indicates, some years are significantly higher than average resulting in significantly higher expenses.



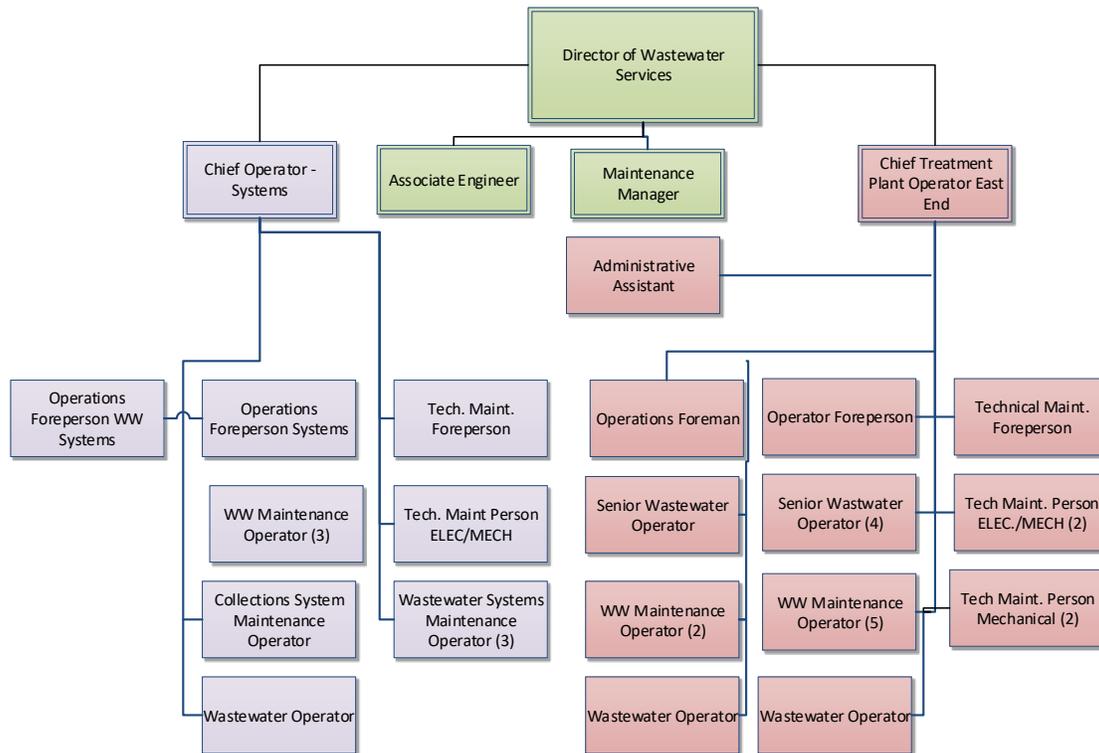
## Wastewater Services – Purpose Statement

To provide effective high quality customer-oriented wastewater collection and treatment services in an efficient and responsive manner meeting Federal and State of Maine discharge standards to protect the surface and receiving waters of Casco Bay.

## Core Services

The Portland Water District’s Wastewater Services Group is responsible for portions of the wastewater infrastructure in Cape Elizabeth, Cumberland, Gorham, Portland (including Peaks Island), Westbrook and Windham. Further, the Portland Water District owns and operates the Westbrook/Gorham/Windham Regional treatment plant, the Cape Elizabeth treatment plant, the Peaks Island treatment plant, and the East End treatment plant in Portland.

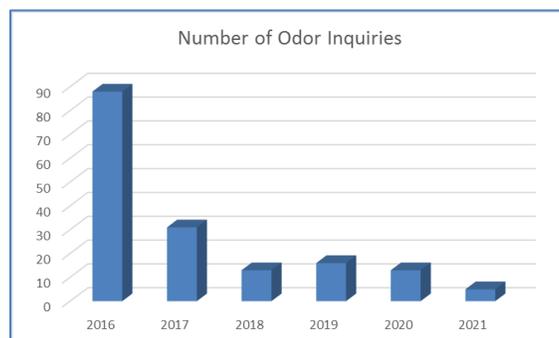
Administration for the Wastewater Services Group is comprised of the Director of Wastewater Services who oversees and provides administrative support to the operational units (Wastewater Administration – B1; green in organization chart). Operation and maintenance staff of 23 are directly responsible for the operation and maintenance of our four treatment plants (Treatment – B3; red in organization chart). Operators from each area are regularly involved in the operation of all four treatment facilities and several of our pump stations. Wastewater Systems staff of 13 people is responsible for the operation and maintenance of interceptors, force mains, pump stations, collectors, flow monitoring, and combined sewer regulators with the water operations groups (Systems – L9; purple in organization chart). The operator training program includes regular laboratory training to ensure our operators can perform the required regulatory testing to assist in the monitoring of our wastewater operations.



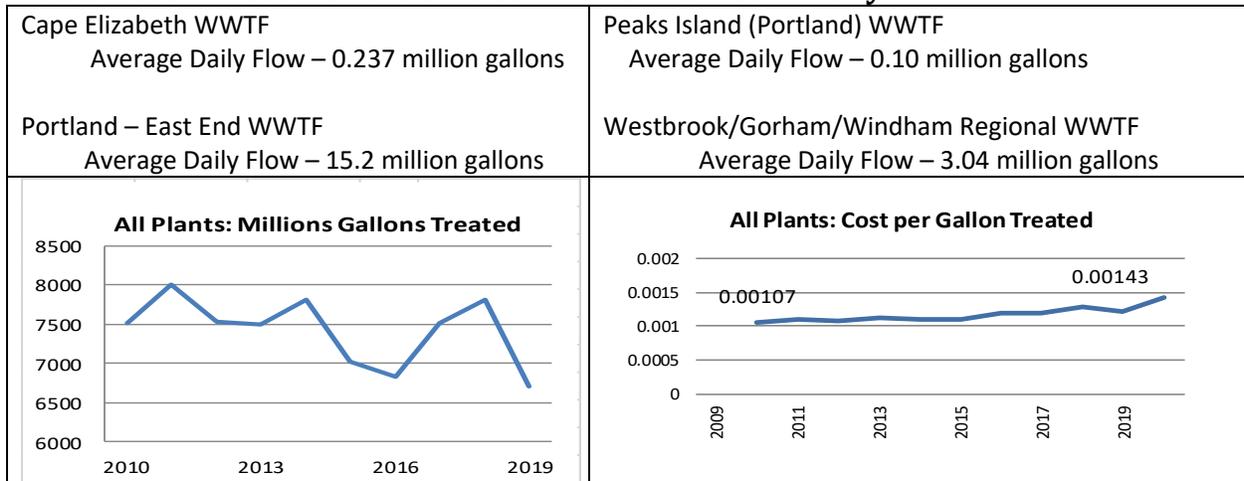
## Key Statistics

### Wastewater Services Group Facts

- The Wastewater Services Group operates four wastewater treatment plants and provides sewer services to six communities. The East End treatment plant is the largest municipal treatment facility in Maine.
- Our Combined Sewer Overflow (CSO) monitoring efforts include a web-based system that allows for near real-time monitoring and alarming of over 90% of the total overflow sites for PWD and several member municipalities.
- The East End Treatment plant maximizes flow to the treatment facility during wet weather events as a critical component of the City of Portland’s CSO management efforts, treating about half of the total wet weather flow generated in the collection system. This effort reduces the overall CSO discharge in Portland by nearly 50% and is a vital part of the CSO control program.
- The Westbrook/Gorham/Windham Regional WWTF and Cape Elizabeth WWTF also maximize the amount of flow accepted during wet weather events. Accepting this additional flow provides treatment and decreases the amount of combined sewer overflows in Westbrook and Cape Elizabeth.
- The Wastewater Operator apprentice program has been in place for nearly a decade. This effort has helped address workforce management issues due to employee retirements. These positions work in each of our treatment plants and the wastewater systems and pumping group. This effort has been essential and very beneficial, as nearly the entire operations team has been replaced through retirements and changes in job assignments.
- Beginning in 2016, nutrient optimization efforts at the East End WWTF have reduced nitrogen loadings to Casco Bay. Annual seasonal total nitrogen loadings have been reduced by 62% to 72% in past years. In 2021 initial results indicate a 75% seasonal mass loading reduction has been realized through our adaptive management approach. Staff at the treatment plant have closely managed the disinfection system to improve operation of the disinfection system during nearly complete nitrification. Similar efforts at the Cape Elizabeth and Peaks Island plants have also reduced effluent nitrogen levels discharged to Casco Bay.
- The installation of ultra-violet disinfection systems at the Cape Elizabeth and Peaks Island treatment plants have improved disinfection system performance while decreasing the overall cost of chemical addition for disinfection.
- Wastewater Systems staff perform regular sampling support to the PWD Industrial Pretreatment Program that monitors industrial discharges to the collection system.
- Efforts to manage odors from treatment plants and pump stations continue to reduce odors and the associated complaints. The addition of an odor control system at the Northeast Pump station and the 2016 aeration system improvements have been major factors in the reduction of odors from the plant.



### Wastewater Treatment Facilities – 2020 Flow Summary



### Wastewater Systems Responsibility

- Cape Elizabeth – Interceptors, force mains, and 27 pump stations
- Cumberland – Collectors, interceptors, force mains and 13 pump stations
- Gorham – Collectors, interceptors, force mains and 17 pump stations
- Portland – Interceptors, force mains, 21 combined sewer regulators, CSO monitoring, and 10 pump stations
- Peaks Island (Portland) – Collectors, interceptors, force mains, storm drain system and 4 pump stations
- Westbrook – Interceptors, force mains, 5 combined sewer regulators, CSO monitoring and 3 pump stations
- Windham – Collectors, force mains and 2 pump stations

### Performance Benchmarks

	2020 Actual	2021 Projected	2022 Goal
<b>Wastewater Systems</b>			
<b>Corporate Goal - Environment</b>			
Wet wells cleaned	96	150	>125
Feet of pipe cleaned*	8,700	18,000	>20,000
Feet of pipe televised*	49,300	30,000	>30,000
Dry weather overflows	11	5	0
<b>Corporate Goal - Reliability</b>			
Corrective Maintenance tasks	110	110	<200
<b>Corporate Goal - Affordability</b>			
Preventive Work Orders	1,354	1,500	1,500
<b>Treatment Operations</b>			
<b>Corporate Goal - Environment</b>			
Total license excursions	20	15	0
<b>Corporate Goal - Reliability</b>			
Biosolids removed (wet tons)	23,740	24,000	<24,000
% BOD removed	94	94	>85
% suspended solids removed	95	94	>85

\*Note: PWD has completed a 10-year effort to inspect/CCTV the collection and interception system. These levels will decrease as the results of this program are evaluated.

## Past Accomplishments

- Flow monitoring of combined sewer overflow events:
  - PWD continuously monitors over 90% of all combined sewer overflows in Portland, Westbrook, and Cape Elizabeth. Alarms are generated when dry weather overflows occur and PWD responds immediately to address the issue. This program plays a significant role in the development and performance measurement of combined sewer overflow Long Term Control Plans in Portland, Westbrook, and Cape Elizabeth.
  
- Effluent Permits and East End Nutrient Optimization Efforts
  - The Cape Elizabeth Wastewater Treatment Facility permit was renewed in late 2016. The permit included a significant reduction in routine monitoring requirements due to the plant's historical performance relative to regulatory standards. Monitoring of effluent nitrogen was required from May through October 2017. Monthly monitoring from May through October has continued. The facility is generally able to reduce the effluent total nitrogen.
  
  - The East End Wastewater Treatment Facility permit was renewed in 2017. This effort included a number of stakeholders and the Department of Environmental Protection. The negotiated "nutrient optimization approach" for managing nitrogen includes effluent monitoring from May to October, operational efforts to reduce nitrogen (leveraging improvements made during the aeration system upgrade), and participation in the City of Portland's Integrated Planning efforts. The permit included a significant reduction in routine monitoring requirements due to the plant's historical performance relative to regulatory standards. Over the past four years, during May through September, a reduction in the historical levels of nitrogen in the treated effluent of 75% has been realized. This represents a reduction of 1.5 million lbs. of nitrogen discharged to Casco Bay during that timeframe.
  
  - The Peaks Island Wastewater Treatment Facility permit was renewed in 2017. The permit included a significant reduction in routine monitoring requirements due to the plant's historical performance relative to regulatory standards. Monitoring of effluent nitrogen was required from May through October. The facility is generally able to reduce the effluent total nitrogen. Increased demands for development on the island will strain the plant's ability to accept the increased future loadings without improvements to the facility.

## Past Accomplishments (continued)

- Westbrook/Gorham/Windham Regional Treatment Facility upgrades
  - The dewatering system was replaced in 2018 with a new screw press. While it has taken some effort, operation of the system has been optimized and a goal of exceeding 21%TS (an increase of 5%TS from the previous dewatering system) has been established.
  - Seasonal monitoring of phosphorus has been completed annually to develop baseline effluent levels. The Maine Department of Environmental Protection is expected to develop phosphorus water quality criteria that may be evaluated as part of future permit renewals.
  
- Improvements to Pump Station reliability
  - PWD monitors all systems through a SCADA computer system. Treatment plants can be remotely operated from the East End Treatment Facility, the Westbrook/Gorham Regional Treatment Facility, or the Douglass St. Office during emergencies using the SCADA system. In 2020, treatment plant staff took over daily alarm monitoring and dispatch responsibilities as part of our pandemic response plan.
  - To improve the reliability of systems during power interruption, PWD requires generators at new pump stations and has installed an average of 3 generators per year at its existing pump stations. The majority of pump stations that require emergency generators have been upgraded or have had generators installed during construction as part of our new infrastructure standards. Bypass connections are also installed to allow the stations to be serviced by a portable pumping unit, if needed.
  - Staff completed an assessment of all pump stations in 2021. A summary report has been prepared for each community that PWD serves. These findings continue to guide the development and implementation of our long-range capital improvement program and help to communicate the work that has been completed to maintain proper system performance.

## Past Accomplishments (continued)

- Wastewater Services Department changes
  - The Wastewater Operator apprentice program continues to train operators to assist with workforce management. Operators from this program have moved into higher-level positions within the Department.
  - Scheduling changes were made in early 2020. Senior Operators were assigned to days in an effort to increase the presence at our treatment plants during regular hours. Flexibility has increased along with training as a result. There has been an 80% increase in the number of completed work orders.
  
- East End Wastewater Treatment Plant
  - The construction of the diffused air system at the East End treatment plant was completed in the summer of 2017. Plant performance, nutrient reductions, and a dramatic decrease in odors from the plant have resulted.
  - Emphasis on managing the disinfection system during nutrient optimization efforts has reduced effluent fecal coliform violations.
  - Increased attention to planned and preventive maintenance continues with the assistance of the Maintenance Manager.

## **2022 Projects and Initiatives**

### **B1 – Administration**

- We continue to monitor changing regulations related to phosphorus, nitrogen, and high flow management. With the renewal of permits at the treatment plants, we will monitor efforts that could affect the next permit in 2022.
- The City of Portland has completed their draft Integrated Planning effort to prioritize water quality commitments. This effort will assess combined sewer, stormwater, and wastewater treatment obligations and prioritize the use of resources to address the various efforts with a goal of improving receiving water quality. The City is currently negotiating the final permit and long term control plan, which will inform future requirements for PWD.
- The Westbrook CSO Long Term Control Plan will be updated in 2021. This will include a review of work accomplished in the collection system over the past 5 years and the development of a monitoring program and work to continue the efforts to eliminate CSO flows.
- With continued changes brought about from staff transitions, an increased emphasis on recruiting, training, and developing the team within wastewater services will remain a focus of management with the support of the Employee Services Department.
- Staff has supported the effort to implement the new asset management system.
- Biosolids management has become more of a challenge as contaminants of emerging concern and other solid waste policy issues strain Maine’s rather fragile waste management infrastructure. A 2020 review of current long-term options has resulted in a planned engineering review to help shape future investment to manage this critical component of our treatment efforts. As market pressures increase costs while reducing outlets, a more capital intensive program may be required.

### **B3, L9 – Operations**

- Treatment Plant Operators continue to focus on effluent compliance including making process control adjustments to the operation of the treatment plant as needed, most recently in efforts to manage effluent nitrogen from the Cape Elizabeth, Peaks Island, and East End WWTFs.
- The operations team continues to focus on implementing safe work practices throughout the workplace. Focus areas include confined space, lock-out tag-out programs, electrical safety, and the regular use of personal protective equipment by staff.
- Daily, weekly, and monthly coordination meetings have been established. These efforts are led by staff and continue to increase communication, awareness, and performance.
- The collection system flow monitoring software is being updated (to a web-based system) and staff is implementing the new performance improvements that the software offers.

## **2022 Projects and Initiatives (continued)**

### **Corporate Goal – Reliability**

#### **B1 – Administration**

- Support increased reliance on the asset management system to coordinate and document departmental efforts. The transition to the new system will result in a more user-friendly system with increased scheduling and functionality.

#### **B3, L9 – Operations**

- The Maintenance Manager (Planning and Scheduling) is helping to further refine the preventive maintenance program as the new Maintenance Management Computer system is implemented.
- Continue developing preventive maintenance practices that lead to or exceed a 75%/25% mix of preventive to corrective work order history. It is anticipated that the new asset management system will further enhance these efforts.
- Monitor pump system's ability to minimize pump station downtime. The installation of generators at key pump stations along with bypass pumping connections helps to minimize service interruptions.
- Continue the condition assessment program of combining line cleaning and CCTV inspection of 10% of each community's buried infrastructure. We completed assessment of our entire buried sewer infrastructure by the end of 2018. The results are being evaluated and staff will develop a monitoring plan over the next 2 years. The Associate Engineer will assist with this effort in the future.
- A comprehensive evaluation of the HVAC systems at each treatment plant began in 2016. This evaluation identified aging systems in need of refurbishment and replacement. The project included a review of energy management in the recommendation of future projects. The first projects from this assessment are currently under construction.

### **Corporate Goal – Affordability**

#### **B1 – Administration**

- Improved reliance on established operating parameters, Standard Operating Procedures, and preventive maintenance continue to set performance goals to improve operating efficiency.

#### **B3, L9 – Operations**

- Manage departmental budgets with area supervisors that lead to cost savings measures, i.e. improved dewatered solids at the Westbrook/Gorham/Windham and East End WWTFs, station visits, chemical use, etc. Major budget items, including chemicals, power, biosolids, and others are monitored using the WIMS data management system to monitor and control operations and budgets. Staff will continue to develop clear operational goals for key process areas (dewatering, odor control, disinfection, aeration, etc.) and rely on process data to manage the processes.
- Continue to implement process control measures in the operation of wastewater treatment facilities. Operations Plans have been developed for each facility and on-line computer based Operations Manuals continue to be updated to serve as guidance for the Operations Team. Dewatering, disinfection, and pump station operation have been areas of significant focus.

## **2022 Projects and Initiatives (continued)**

### **Corporate Goal – Environment**

#### **B1 – Administration**

- Continue to monitor existing performance and developing regulations.

#### **B3, L9 – Operations**

- Treatment and Systems teams work to ensure facilities operate in accordance with permit requirements. Effluent permit violations have decreased in recent years, with a goal of no violations from our treatment plants and systems.
- Through process control enhancements at the Peaks Island and Cape Elizabeth WWTFs, these plants are managing effluent nitrogen levels. With the upgraded aeration system and the requirement for a “nutrient optimization approach” at the East End, efforts to manage and monitor effluent nitrogen began in 2018. The Westbrook/Gorham/Windham Regional WWTF is undergoing a major aeration system upgrade which will improve plant performance, enhance wet weather performance, and possibly reduce effluent nitrogen discharges.
- Beginning in 2016, our goal became zero exceedances each year from all treatment plants along with no dry weather overflows from the collection and interception system. This goal continues to direct our operational and compliance efforts.
- The developing concern over a class of chemicals referred to as PFAS continues to challenge the management of biosolids generated through wastewater treatment statewide. Staff is engaged locally, regionally, and nationally in ongoing efforts to manage biosolids given the awareness of PFAS. A study of biosolids management efforts will begin in 2021. It is anticipated that the future program will require more capital intensive systems that reduce the volume of material to be managed, while possible reducing the concentration of PFAS and other contaminants of emerging concern.

### **Corporate Goal – Employees and Work Environment**

#### **B1 – Administration**

- Promote the District’s professional development program of a minimum 80 hours of training each year. Training across the Wastewater Services Department has increased.
- Operators are encouraged to obtain required licenses and to continue with advanced licenses for wastewater treatment and collections.

#### **B3, L9 – Operations**

- Provide support to employees through annual performance reviews and regular support. In 2021, all performance reviews are completed in a timely manner.
- To ensure safety of our employees near chemical storage facilities and other identified areas, an investment in forced air personal respirator systems was made in 2019. This has enhanced our ability to safely handle chemicals, implement a painting and maintenance program in our facilities, and to work more safely around wastewater during the pandemic.
- Equipment lifts, confined space entry equipment, and personal protective equipment, and other related safety items are invested in to support the work of our employees.

## Financial Overview

The Wastewater Services Group continues to operate with a goal of delivering effective services at reasonable costs to its member communities. Overall, the 2022 budget total includes an increase of \$687,876 to \$11,577,567. This is a 6.3% increase from the 2021 budget.

**Salaries/Wages:** Overall budgeted staffing have remained consistent. Maintenance support for all treatment plants continues to come from the central treatment maintenance group at the East End treatment plant with these efforts coordinated through our Maintenance Manager. The scheduling of employees at treatment plants has been adjusted to increase the presence at our facilities during normal working hours. Overall, this category has increased by \$67,754 or 2.6%.

**Biosolids Disposal:** The total budget for the hauling and management of biosolids generated from the treatment of wastewater has increased by \$152,080 in 2022 or 7%. In addition, a new MEDEP surcharge of \$10/wet ton of biosolids produced will further increase costs by \$233,000 in 2022. This fee will be used to fund PFAS assessment and mitigation efforts in Maine. The agreement with the District's disposal vendor was renewed in 2020 and provides for landfilling of biosolids. The higher disposal costs in the contract, and the \$10/wet ton MEDEP fee, again relate to increased regulator and public concern with per- and poly-fluoroalkyl substances (PFAS). The budget for Percent Total Solids (%TS) at both Portland's East End Wastewater Treatment Facility and Westbrook Regional Treatment Facility is targeted at 21.0% again in 2022.

**Chemicals:** Generally, chemicals are used at each of our facilities to treat and disinfect the treated wastewater before being discharged to the environment, to aid in dewatering biosolids, and for odor control. Overall, the total budget for chemicals has decreased by \$42,938 or -5.0% from the 2021 budget. Much of this relates to a decrease in disinfection system chemical use at the East End WWTF.

**Contracted Services:** Contracted services include the costs of the Falmouth and South Portland treatment plants to treat flows conveyed by PWD from Cumberland and Northern Cape Elizabeth. Contracted Services also includes a maintenance agreement related to the CSO monitoring services. The budget amount increased by \$64,705 or 4.7%.

**Heat/Fuel Oil:** The East End treatment plant converted from fuel oil to natural gas in 2012. Natural gas use is continually monitored and recorded by the SCADA control system. For 2022, the budget has increased by 11.7% or \$18,489 as the cost of energy is expected to increase.

**Purchased Power:** The power budget has been increased by \$151,222 or 10.5% in the 2022 budget. The majority of the increase in the T&D portion of the power bill is due to an approx. 25% increase in transmission rates, regulated by the Federal Energy Regulatory Commission (FERC). There was also a small increase in distribution rates to recover storm costs.

**Transportation:** The transportation budget has increased by \$22,533 from the 2021 budget. This 8.9% increase results in a budget amount of \$275,151 and reflects the expected use of our vehicle fleets in the coming year.

## Wastewater Services: Total

### Financial Summary:

Column1	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Sub-Group:</b>						
B1 - Wastewater Administration	\$332,431	\$211,541	\$406,491	\$413,535	\$7,044	1.7%
B3 - Wastewater Treatment	6,817,625	3,625,949	7,615,423	8,159,545	544,122	7.1%
L9 - Wastewater Systems	2,664,567	1,342,631	2,867,777	3,004,487	136,710	4.8%
<b>Grand Total</b>	<b>9,814,623</b>	<b>5,180,121</b>	<b>10,889,691</b>	<b>11,577,567</b>	<b>687,876</b>	<b>6.3%</b>
<b>Expense Type:</b>						
Salaries & Wages	\$2,369,192	\$1,225,620	\$2,584,171	\$2,651,925	\$67,754	2.6%
Employee Benefits	1,032,584	582,544	1,223,989	1,165,242	-58,747	-4.8%
Biosolids Disposal	1,704,001	1,065,931	2,181,420	2,333,500	152,080	7.0%
Chemicals	773,116	346,523	861,184	818,246	-42,938	-5.0%
Contracted Services	1,332,318	687,685	1,388,400	1,453,105	64,705	4.7%
Heat/Fuel Oil	162,359	106,881	158,688	177,177	18,489	11.7%
Insurance	46,790	30,833	46,912	65,250	18,338	39.1%
Materials & Supplies	399,095	213,399	458,262	475,340	17,078	3.7%
Other Expense	87,321	15,528	52,010	67,805	15,795	30.4%
Purchased Power	1,427,719	687,488	1,445,610	1,596,832	151,222	10.5%
Regulatory/Taxes	46,465	9,540	42,150	275,550	233,400	553.7%
Tele/Other Utilities	217,729	103,610	194,277	222,444	28,167	14.5%
Transportation	215,934	104,537	252,618	275,151	22,533	8.9%
<b>Grand Total</b>	<b>9,814,623</b>	<b>5,180,121</b>	<b>10,889,691</b>	<b>11,577,567</b>	<b>687,876</b>	<b>6.3%</b>
<b>Headcount:</b>						
Full Time	39	39	39	39	0	0.0%
Part Time	0	0	0	0	0	n/a
<b>Total</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>39</b>	<b>0</b>	<b>0.0%</b>

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Salaries &amp; Wages</b>						
660111 - SALARIES/WAGES NON-UNION	\$375,195	\$209,935	\$426,630	\$437,964	\$11,334	2.7%
660121 - WAGES/REGULAR UNION	1,753,801	905,337	1,934,197	1,979,113	44,916	2.3%
660122 - WAGES/OVERTIME UNION	147,325	65,802	147,575	124,886	(22,689)	-15.4%
660123 - WAGES/DOUBLETIME UNION	16,398	13,575	20,062	28,372	8,310	41.4%
660124 - WAGES/STANDBY TIME UNION	47,937	30,971	45,627	70,430	24,803	54.4%
660131 - WAGES - REGULAR - TEMPS	-	-	10,080	11,160	1,080	10.7%
66014 - VACATION ACCRUAL	19,161	-	-	-	-	n/a
66015 - SICKTIME ACCRUAL	9,375	-	-	-	-	n/a
<b>Salaries &amp; Wages Total</b>	<b>2,369,192</b>	<b>1,225,620</b>	<b>2,584,171</b>	<b>2,651,925</b>	<b>67,754</b>	<b>2.6%</b>
<b>Employee Benefits</b>						
660401 - FICA - EMPLOYERS' SHARE	184,212	94,312	197,691	202,874	5,183	2.6%
660405 - SAFETY/WHY PROGRAM ITEMS	7,321	9,747	6,300	7,770	1,470	23.3%
660411 - MEALS ALLOWANCE	90	130	450	450	-	0.0%
6604151 - FIELD UNIFORMS	-	-	90	-	(90)	-100.0%
660418 - STIPENDS	3,200	2,900	3,900	3,200	(700)	-17.9%
660419 - EMPLOYEE BENEFITS-MISC OTH	3,531	754	2,100	3,697	1,597	76.0%
660491 - FRINGE BENEFITS-REG/SAL	834,229	474,700	1,013,458	947,251	(66,207)	-6.5%
<b>Employee Benefits Total</b>	<b>1,032,584</b>	<b>582,544</b>	<b>1,223,989</b>	<b>1,165,242</b>	<b>(58,747)</b>	<b>-4.8%</b>
<b>Biosolids Disposal</b>						
663571 - BIOSOLIDS DISPOSAL	1,704,001	1,065,931	2,181,420	2,333,500	152,080	7.0%
<b>Biosolids Disposal Total</b>	<b>1,704,001</b>	<b>1,065,931</b>	<b>2,181,420</b>	<b>2,333,500</b>	<b>152,080</b>	<b>7.0%</b>
<b>Chemicals</b>						
661811 - SODIUM BICARBONATE	21,560	13,485	17,365	17,758	393	2.3%
661812 - SODIUM BISULFITE	116,617	47,834	228,669	157,216	(71,453)	-31.2%
66182 - CAUSTIC SODA	5,887	4,471	15,110	6,240	(8,870)	-58.7%
66185 - SODIUM HYPOCHLORITE	306,108	134,422	320,660	289,821	(30,839)	-9.6%
66189 - POLYMER	317,272	140,701	265,242	335,073	69,831	26.3%
661899 - OTHER CHEMICALS	5,673	5,611	14,138	12,138	(2,000)	-14.1%
<b>Chemicals Total</b>	<b>773,116</b>	<b>346,523</b>	<b>861,184</b>	<b>818,246</b>	<b>(42,938)</b>	<b>-5.0%</b>
<b>Contracted Services</b>						
6631 - ENGINEERING SERVICES	46,492	10,850	60,000	65,000	5,000	8.3%
663521 - TRAFFIC CONTROL	510	-	800	800	-	0.0%
6635221 - PAVING - MINOR REPAIR	-	1,050	-	-	-	n/a
663525 - CONTRACTOR CONSTRUCTION	10,000	81,127	42,000	57,000	15,000	35.7%
66353 - REPAIR SERVICES	41,405	43,949	88,500	90,500	2,000	2.3%
66354 - MAINTENANCE SERVICES	319,520	127,625	299,106	289,906	(9,200)	-3.1%
663543 - CSO FLOW MONITORING	118,869	60,692	154,000	154,000	-	0.0%
663544 - MAINT SERVICES - CCTV	85,300	26,800	61,250	61,250	-	0.0%
663546 - MAINTENANCE - SNOW REMOVL	49,942	24,622	46,993	58,808	11,815	25.1%
663547 - WASTE SLUDGE TRANSPORT	32,384	13,519	49,800	34,200	(15,600)	-31.3%
663551 - LAB ANALYSIS	8,857	4,940	1,600	3,200	1,600	100.0%
663561 - COMPUTER LICENSES	35,677	39,856	35,939	41,366	5,427	15.1%
663562 - COMPUTER MAINTENANCE	385	385	-	-	-	n/a
663572 - GRIT & SCREENS DISPOSAL	59,369	5,423	65,650	65,650	-	0.0%
663573 - GREASE DISPOSAL	22,277	11,885	30,700	30,200	(500)	-1.6%
663574 - DISPOSAL SERVICES	11,717	2,933	7,800	8,525	725	9.3%
663585 - TREATMENT CONTRACT SERVIC	484,062	229,583	435,600	485,620	50,020	11.5%
6635851 - WW DEWATERING SERVICES	3,656	2,357	9,062	6,080	(2,982)	-32.9%
6635852 - WW DEWATERING SRVS CRED	(3,656)	(2,357)	(5,000)	(3,600)	1,400	-28.0%
663587 - COURIER SERVICES	4,651	2,268	4,600	4,600	-	0.0%
663599 - MISC OTHER SERVICES	796	180	-	-	-	n/a
6640 - RENTAL-PROPERTY/EQUIPMENT	105	-	-	-	-	n/a
<b>Contracted Services Total</b>	<b>1,332,318</b>	<b>687,685</b>	<b>1,388,400</b>	<b>1,453,105</b>	<b>64,705</b>	<b>4.7%</b>

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Heat/Fuel Oil</b>						
66161 - HEATING OIL	\$35,413	\$19,584	\$26,215	\$34,226	\$8,011	30.6%
661621 - PIPELINE DELIVERED PROPAN	75,661	46,114	78,709	82,973	4,264	5.4%
661622 - CONTAINER DELIVERED	50,621	41,184	53,214	59,428	6,214	11.7%
66166 - UNLEADED GAS	664	-	550	550	-	0.0%
<b>Heat/Fuel Oil Total</b>	<b>162,359</b>	<b>106,881</b>	<b>158,688</b>	<b>177,177</b>	<b>18,489</b>	<b>11.7%</b>
<b>Insurance</b>						
66599 - PROPERTY & BOILER INSUR	46,790	30,833	46,912	65,250	18,338	39.1%
<b>Insurance Total</b>	<b>46,790</b>	<b>30,833</b>	<b>46,912</b>	<b>65,250</b>	<b>18,338</b>	<b>39.1%</b>
<b>Materials &amp; Supplies</b>						
6619 - ASSET PURCHASES	81,760	27,815	151,000	131,000	(20,000)	-13.2%
66202 - TOOLS	12,119	6,610	7,700	10,700	3,000	39.0%
66203 - VENDOR PURCHASED SUPPLIES	164,900	95,892	186,550	183,341	(3,209)	-1.7%
662041 - MATERIALS INVENTORY	71,530	24,194	52,800	52,300	(500)	-0.9%
662042 - SUPPLIES INVENTORY	44,393	30,810	31,725	37,525	5,800	18.3%
66204201 - INVENTORY - QPR	-	59	-	-	-	n/a
662043 - TOOL INVENTORY	18,203	11,575	17,075	17,225	150	0.9%
66204301 - INVENTORY - TONER	121	-	-	-	-	n/a
66204302 - INVENTORY - PAPER	93	-	-	-	-	n/a
66204303 - INVENTORY-COMPUTER EQUIP	817	671	500	500	-	0.0%
662047 - GARAGE INVENTORY	2,373	1,273	2,225	2,225	-	0.0%
66205 - CONSUMABLE SUPPLIES	63	1,548	650	650	-	0.0%
66206 - COMPUTER RELATED EQUIP	2,721	42	8,037	9,874	1,837	22.9%
66207 - EQUIPMENT PARTS	-	12,909	-	30,000	30,000	n/a
<b>Materials &amp; Supplies Total</b>	<b>399,095</b>	<b>213,399</b>	<b>458,262</b>	<b>475,340</b>	<b>17,078</b>	<b>3.7%</b>
<b>Other Expense</b>						
6642 - EQUIPMENT RENT	52,024	382	2,250	2,250	-	0.0%
66609 - OTHER ADVERTISING	-	-	350	350	-	0.0%
6675111 - INSTATE TRAINING/CONF	10,673	7,990	22,800	24,300	1,500	6.6%
6675112 - OUT OF STATE TRAINING/CON	4,910	20	10,950	12,950	2,000	18.3%
667513 - DUES	13,674	11,491	12,800	12,800	-	0.0%
667514 - PROFESSIONAL LICENSES	1,727	2,558	2,480	2,600	120	4.8%
667515 - PERIODICAL SUBSCRIPTIONS	590	415	450	450	-	0.0%
667517 - PLANT OPER LICENSE FEES	-	-	75	150	75	100.0%
667521 - POSTAGE - THIRD PARTY	52	15	75	75	-	0.0%
667522 - POSTAGE - INTERNAL	90	-	100	100	-	0.0%
667523 - POSTAGE - EXPRESS DELIVER	192	-	500	400	(100)	-20.0%
667533 - FORMS STOCK	-	-	400	400	-	0.0%
667552 - SAFETY TRAINING	1,447	-	600	1,600	1,000	166.7%
667555 - SAFETY EXPENSES	24,883	591	22,050	33,050	11,000	49.9%
667581 - ANNUAL LAND CONTRIB CAPE	833	4,000	-	-	-	n/a
667592 - FOOD SUPPLIES	501	162	700	900	200	28.6%
667599 - OTHER MISCELLANEOUS	295	-	-	-	-	n/a
6676 - EXPENSE OFFSET	(24,570)	(12,285)	(24,570)	(24,570)	-	0.0%
667511 - TRAINING & CONFERNCES	-	190	-	-	-	n/a
<b>Other Expense Total</b>	<b>87,321</b>	<b>15,528</b>	<b>52,010</b>	<b>67,805</b>	<b>15,795</b>	<b>30.4%</b>

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Purchased Power</b>						
66151 - POWER - LARGE ENERGY	\$353,423	\$244,717	\$464,599	\$475,934	\$11,335	2.4%
66152 - POWER - LARGE T&D	394,040	174,031	433,310	516,862	83,552	19.3%
66153 - POWER - MEDIUM ENERGY	267,959	135,044	250,281	240,605	(9,676)	-3.9%
66154 - POWER - MEDIUM T&D	191,352	88,865	188,986	249,211	60,225	31.9%
66155 - POWER - SMALL ENERGY	38,883	20,331	48,559	44,565	(3,994)	-8.2%
66156 - POWER - SMALL T&D	48,146	24,500	60,383	69,855	9,472	15.7%
66157 - POWER - OTHER CHARGES	63,681	-	-	-	-	n/a
66158 - LOAD RESPONSE	(331)	-	(508)	(200)	308	-60.6%
66159 - POWER - CAPACITY	70,566	-	-	-	-	n/a
<b>Purchased Power Total</b>	<b>1,427,719</b>	<b>687,488</b>	<b>1,445,610</b>	<b>1,596,832</b>	<b>151,222</b>	<b>10.5%</b>
<b>Regulatory/Taxes</b>						
667516 - PERMITS	25,941	9,015	28,150	28,200	50	0.2%
667518 - REGULATORY REQUIRED FEES	11,340	300	14,000	247,350	233,350	1666.8%
667519 - REGULATORY FINES	9,185	225	-	-	-	n/a
<b>Regulatory/Taxes Total</b>	<b>46,465</b>	<b>9,540</b>	<b>42,150</b>	<b>275,550</b>	<b>233,400</b>	<b>553.7%</b>
<b>Tele/Other Utilities</b>						
66101 - WATER	91,420	39,244	87,488	89,175	1,687	1.9%
66102 - WASTEWATER	81,934	36,549	53,348	72,312	18,964	35.5%
66103 - STORMWATER CHARGES	18,602	9,801	18,845	20,185	1,340	7.1%
66112 - DATA LINES	19,385	15,282	27,196	34,392	7,196	26.5%
66113 - CELLULAR PHONES	6,389	2,734	7,200	6,180	(1,020)	-14.2%
66114 - PAGERS	-	-	200	200	-	0.0%
<b>Tele/Other Utilities Total</b>	<b>217,729</b>	<b>103,610</b>	<b>194,277</b>	<b>222,444</b>	<b>28,167</b>	<b>14.5%</b>
<b>Transportation</b>						
66501 - TRANSPORTATION - INTERNAL	119,585	63,237	172,323	174,042	1,719	1.0%
665019 - TRANS INTERNAL INACTIVE	81,451	33,948	63,120	82,808	19,688	31.2%
66502 - TRANSPORTATION - EXTERNAL	14,376	7,045	15,300	16,376	1,076	7.0%
66503 - MILEAGE REIMBURSEMENT	522	307	1,875	1,925	50	2.7%
<b>Transportation Total</b>	<b>215,934</b>	<b>104,537</b>	<b>252,618</b>	<b>275,151</b>	<b>22,533</b>	<b>8.9%</b>
<b>Grand Total</b>	<b>9,814,623</b>	<b>5,180,121</b>	<b>10,889,691</b>	<b>11,577,567</b>	<b>687,876</b>	<b>6.3%</b>

**Wastewater Services: Wastewater Administration (B1)**

**Financial Summary:**

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$213,275	\$123,953	\$255,694	\$263,225	\$7,531	2.9%
Employee Benefits	99,657	69,584	130,626	125,194	-5,432	-4.2%
Contracted Services	0	0	500	500	0	0.0%
Materials & Supplies	83	3,525	150	1,250	1,100	733.3%
Other Expense	17,496	13,617	17,555	21,250	3,695	21.0%
Tele/Other Utilities	1,467	861	1,416	1,416	0	0.0%
Transportation	453	0	550	700	150	27.3%
<b>Grand Total</b>	<b>332,431</b>	<b>211,541</b>	<b>406,491</b>	<b>413,535</b>	<b>7,044</b>	<b>1.7%</b>
<b>Programs:</b>						
98 - Training	\$12,089	\$4,312	\$20,308	\$23,864	\$3,556	17.5%
99 - Administration	320,342	207,229	386,183	389,671	3,488	0.9%
<b>Grand Total</b>	<b>332,431</b>	<b>211,541</b>	<b>406,491</b>	<b>413,535</b>	<b>7,044</b>	<b>1.7%</b>
<b>Funds:</b>						
10 - General	\$440	\$0	\$0	\$0	\$0	n/a
50 - Wastewater General	331,991	211,541	406,491	413,535	7,044	1.7%
<b>Grand Total</b>	<b>332,431</b>	<b>211,541</b>	<b>406,491</b>	<b>413,535</b>	<b>7,044</b>	<b>1.7%</b>
<b>Headcount:</b>						
Full-Time	3	3	3	3	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0.0%</b>

## Wastewater Services: Wastewater Treatment Plants (B3)

### Financial Summary:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$1,361,145	\$704,925	\$1,481,900	\$1,518,218	\$36,318	2.5%
Employee Benefits	585,752	324,538	689,532	656,411	-33,121	-4.8%
Biosolids Disposal	1,704,001	1,065,931	2,181,420	2,333,500	152,080	7.0%
Chemicals	767,443	340,912	849,046	806,108	-42,938	-5.1%
Contracted Services	739,991	360,726	752,909	789,247	36,338	4.8%
Heat/Fuel Oil	144,318	94,689	137,985	154,736	16,751	12.1%
Insurance	25,880	16,340	25,976	35,947	9,971	38.4%
Materials & Supplies	258,815	139,865	328,188	332,075	3,887	1.2%
Other Expense	55,797	-1,728	13,355	25,455	12,100	90.6%
Purchased Power	936,070	474,697	914,059	1,018,594	104,535	11.4%
Regulatory/Taxes	45,999	9,440	40,050	273,450	233,400	582.8%
Tele/Other Utilities	126,371	61,353	129,405	137,931	8,526	6.6%
Transportation	66,043	34,260	71,598	77,873	6,275	8.8%
<b>Grand Total</b>	<b>6,817,625</b>	<b>3,625,949</b>	<b>7,615,423</b>	<b>8,159,545</b>	<b>544,122</b>	<b>7.1%</b>
<b>Programs:</b>						
44 - WW Pumping	\$25,039	\$4,594	\$15,520	\$3,885	-\$11,635	-75.0%
45 - WW Treatment	6,255,930	3,347,014	7,099,220	7,646,622	547,402	7.7%
63 - Sample Analysis	0	0	6,988	0	-6,988	-100.0%
96 - Pandemic Costs	45,155	0	0	0	0	n/a
97 - Internal Admin	0	0	1,331	0	-1,331	n/a
98 - Training	52,789	61,938	109,366	103,027	-6,339	-5.8%
99 - Administration	438,711	212,403	382,998	406,011	23,013	6.0%
<b>Grand Total</b>	<b>6,817,625</b>	<b>3,625,949</b>	<b>7,615,423</b>	<b>8,159,545</b>	<b>544,122</b>	<b>7.1%</b>
<b>Funds:</b>						
10 - General	\$0	\$0	\$333	\$0	-\$333	-100.0%
50 - Wastewater General	536,333	274,341	500,350	509,038	8,688	1.7%
51 - WW Cape Elizabeth	486,252	259,816	501,661	587,633	85,972	17.1%
53 - WW Cumberland	516	0	2,137	0	-2,137	-100.0%
57 - WW Portland	4,605,592	2,394,125	5,315,508	5,534,725	219,217	4.1%
61 - WW Gorham	0	0	2,137	0	-2,137	-100.0%
62 - WW Westbrook	195	287	2,383	1,240	-1,143	-48.0%
64 - WW Joint Westbrook	1,027,598	601,748	1,092,479	1,263,358	170,879	15.6%
65 - WW Joint LF	1,146	96	0	0	0	n/a
66 - WW Peaks Island	159,992	95,537	198,435	263,551	65,116	32.8%
<b>Grand Total</b>	<b>6,817,625</b>	<b>3,625,949</b>	<b>7,615,423</b>	<b>8,159,545</b>	<b>544,122</b>	<b>7.1%</b>
<b>Headcount:</b>						
Full-Time	23	23	23	23	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>23</b>	<b>0</b>	<b>0.0%</b>

## Wastewater Services: Wastewater Systems (L9)

### Financial Summary:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$794,772	\$396,741	\$846,577	\$870,482	\$23,905	2.8%
Employee Benefits	347,175	188,421	403,831	383,637	-20,194	-5.0%
Chemicals	5,673	5,611	12,138	12,138	0	0.0%
Contracted Services	592,327	326,959	634,991	663,358	28,367	4.5%
Heat/Fuel Oil	18,041	12,193	20,703	22,441	1,738	8.4%
Insurance	20,910	14,494	20,936	29,303	8,367	40.0%
Materials & Supplies	140,196	70,009	129,924	142,015	12,091	9.3%
Other Expense	14,028	3,639	21,100	21,100	0	0.0%
Purchased Power	491,649	212,790	531,551	578,238	46,687	8.8%
Regulatory/Taxes	466	100	2,100	2,100	0	0.0%
Tele/Other Utilities	89,892	41,396	63,456	83,097	19,641	31.0%
Transportation	149,437	70,278	180,470	196,578	16,108	8.9%
<b>Grand Total</b>	<b>2,664,567</b>	<b>1,342,631</b>	<b>2,867,777</b>	<b>3,004,487</b>	<b>136,710</b>	<b>4.8%</b>
<b>Programs:</b>						
30 - Maintenance	\$816	\$0	\$0	\$0	\$0	n/a
41 - Pretreatment	17,588	9,874	41,679	37,781	-3,898	-9.4%
44 - WW Pumping	1,831,018	961,510	2,066,075	2,175,589	109,514	5.3%
45 - WW Treatment	208,352	109,472	229,333	241,402	12,069	5.3%
90 - Vehicles	29,152	16,348	33,688	36,537	2,849	n/a
95 - Douglass Street	14,387	16,568	22,169	21,138	-1,031	-4.7%
96 - Pandemic Costs	28,957	0	0	0	0	n/a
98 - Training	35,490	13,685	69,221	66,878	-2,343	-3.4%
99 - Administration	498,807	215,173	405,612	425,162	19,550	4.8%
<b>Grand Total</b>	<b>2,664,567</b>	<b>1,342,631</b>	<b>2,867,777</b>	<b>3,004,487</b>	<b>136,710</b>	<b>4.8%</b>
<b>Funds:</b>						
10 - General	\$21,637	\$23,174	\$32,509	\$31,513	-\$996	-3.1%
20 - Water General	1,394	1,004	5,217	5,014	-203	-3.9%
50 - Wastewater General	633,491	259,507	537,823	556,746	18,923	3.5%
51 - WW Cape Elizabeth	357,637	175,482	348,158	354,798	6,640	1.9%
53 - WW Cumberland	400,524	203,812	399,474	414,726	15,252	3.8%
55 - WW Windham LF	24,363	14,803	43,413	45,781	2,368	5.5%
57 - WW Portland	701,118	342,663	825,601	866,589	40,988	5.0%
61 - WW Gorham	150,713	157,778	187,515	207,064	19,549	10.4%
62 - WW Westbrook	139,250	64,052	181,802	193,748	11,946	6.6%
64 - WW Joint Westbrook	126,747	53,526	148,465	160,845	12,380	8.3%
65 - WW Joint LF	58,854	34,894	79,597	87,189	7,592	9.5%
66 - WW Peaks Island	48,838	11,935	78,203	80,474	2,271	2.9%
<b>Grand Total</b>	<b>2,664,567</b>	<b>1,342,631</b>	<b>2,867,777</b>	<b>3,004,487</b>	<b>136,710</b>	<b>4.8%</b>
<b>Headcount:</b>						
Full-Time	13	13	13	13	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>13</b>	<b>0</b>	<b>0.0%</b>

## Environmental Services – Purpose Statement

Environmental Services is organized to monitor and protect water quality from watershed to tap and wastewater from collection to discharge.

### Core Services

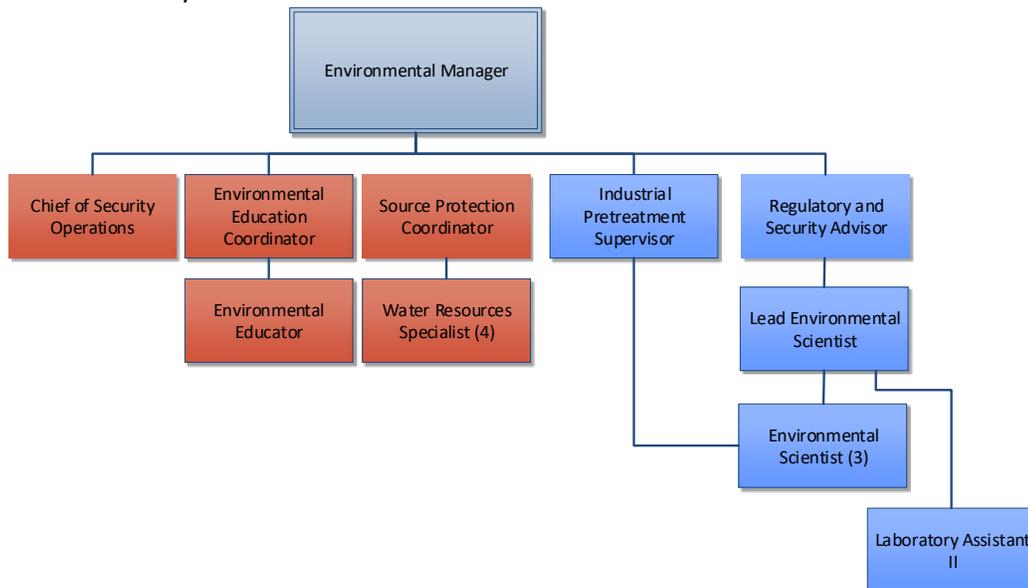
Environmental Services has five core areas of focus:

#### **Water Resources Group (A5; red in the organization chart)**

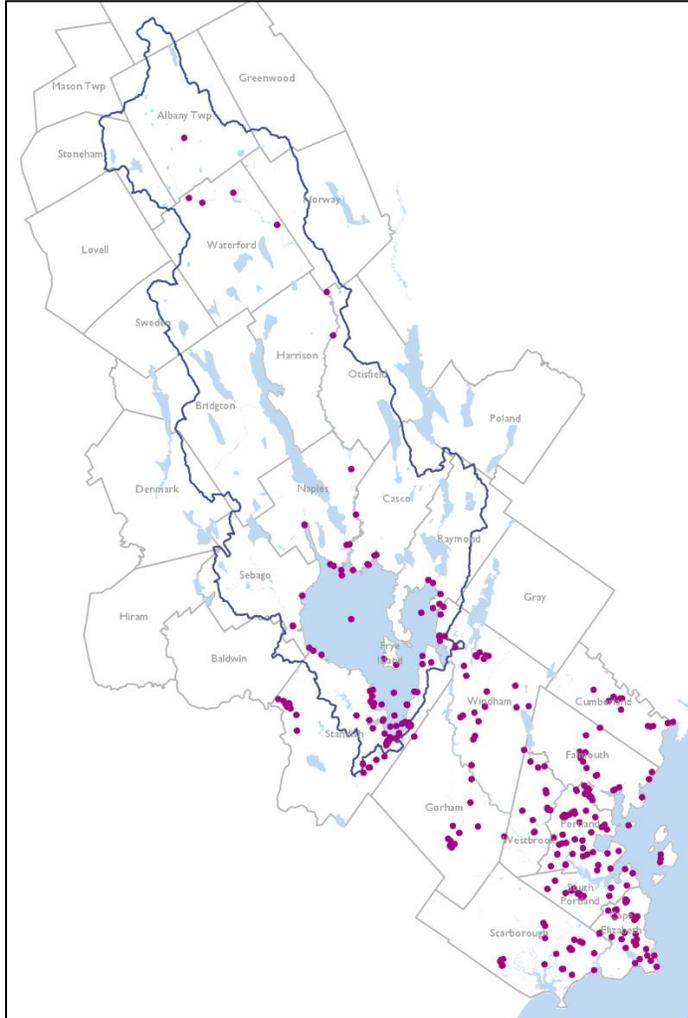
1. The Source Protection section monitors Sebago Lake and the watershed, inspects development projects in the watershed to minimize their impact, works with watershed partners to install pollution prevention and mitigation projects, and works with watershed land trusts to help landowners seeking to conserve their land in perpetuity.
2. The Environmental Education & Outreach section communicates water quality and environmental principles to children and adults throughout the watershed and service area with the goal of encouraging public stewardship of our water resources.
3. The Security section provides for the daily protection of Sebago Lake by patrolling Lower Bay and enforcing the rules of access to the Sebago Lake Land Reserve and also coordinates the District’s Preparedness and Emergency Response activities.

#### **Laboratory Services Group (L6; blue in organization chart)**

4. The Environmental Laboratories ensure the proper collection, analysis and reporting of water, wastewater and biosolids samples both for compliance purposes and to support the proper functioning of water and wastewater operations.
5. The Industrial Pretreatment Program (IPT) staff are responsible for permitting, monitoring and initiating enforcement actions for sewer customers who discharge significant quantities of non-domestic wastewater to the sewer collection system. The IPT programs are designed to ensure discharges from industrial users do not impact District operations or pollute the Presumpscot River or Casco Bay.



## Key Statistics



Watershed Monitoring Programs: **10**

Annual Watershed Inspections: **350**

Individuals reached through Education and Outreach programs:  
More than **12,000** annually

Land Reserve Visitors: **(No accurate figure as permits suspended due to Covid)**

Land Reserve Violations Issued: **95**

Annual Lower Bay Patrol Hours: **2100**

Annual Lower Bay Violators Cited: **190**

Accredited Laboratory Analytes: **71**

Average Annual Number of customer Water Quality Inquiries: **213**

IPT Industries Regulated: **41**

A map illustrating all of the District’s drinking water quality sampling locations from watershed to tap.

## Performance Benchmarks

Annual Program Metrics – Environmental Services	2020 Actual	2021 Projected	2022 Projected
% Verified - Water Quality Inquiries	28	24	25
Shore Land Zone Inspections	345	350	350
Watershed Properties Improved or Recommendations Made	25	20	25
Lower Bay Water Violations	62	35	100
Land Reserve Visitors	>30,000 est.*	>30,000 est.*	>30,000
Land Reserve Violations	97	500	250
Visitors per Land Reserve Violation	309	60	120
Accredited Laboratory Tests	68	71	71
Students Served by WaterWays Program	811	850	1000
Outreach Events and Presentations	8	20	20
Industrial Pretreatment Notices of Violation Issued	29	40	35

## Past Accomplishments

### Environmental Services by the Numbers:

#### Source Protection since 2000:

- Completed more than **10,500** watershed inspections.
- Provided Lakescaping Reports to **520** watershed property owners.
- Financially supported water quality-related improvements on **251** properties.
- Awarded more than **\$286,600** in Lakescaping Grants which, when combined with matching funds, resulted in more than **\$1,395,273** in improvements to the shoreland zone of Sebago Lake.
- Maintained **10** ongoing lake and watershed monitoring programs.
- Reviewed plans for more than **173** large developments and, when necessary, provided planning board feedback in an effort to minimize the impact of these projects.
- Responded to **510** complaints, **180** of which prevented or mitigated environmental violations and/or pollution.
- Contributed more than **\$1,468,607** to assist in the conservation by area land trusts of **12,831** acres of land in the watershed.

#### Education and Outreach since 2000:

- Produced **35** Watershed News newsletters and 5 State of the Lake reports.
- Distributed more than **68,000** Sebago Lake maps and **17,000** “Images of Sebago Lake” calendars to watershed residents and visitors.
- Distributed more than **60,000** other types of brochures and fact sheets to watershed residents and visitors.
- Posted over **420** lake protection related messages on Facebook to an audience that began at **490** followers in 2013 and has increased to over **2,800** followers today.
- Sent **54** mass emails about source protection events, publications, and information to a recipient list that started in 2015 with **1,100** email addresses and has increased to over **3,500** today.
- Taught source protection principles to approximately **20,000** middle school-aged students through our HydroLogics and WaterWays in-school education programs.
- Provided environmental education to approximately **41,000** additional children, teachers, and adults through tours, events, workshops, field trips, lessons, loaned resources, and programs.

#### Water Resources Security since 2005:

- Patrolled Lower Bay by boat and attended the Standish Boat Launch for approximately **25,000** hours combined.
- Patrolled the Sebago Lake Land Reserve by using an all-terrain vehicle (Extended Security patrol) for approximately **1,590** hours combined.
- Issued more than **2,159** warnings for violation of water contact regulations
- Recorded more than **209,808** day-use visits to the Sebago Lake Land Reserve.
- Issued more than **3,870** warnings for violation of Land Reserve Rules.
- Suspended privileges to visit Land Reserve of **42** individuals for aggravated or multiple Land Reserve Rule violations.

## Past Accomplishments (continued)

### Environmental Services by the Numbers (continued)

#### **Environmental Laboratories since 2000:**

- Combined the water and wastewater laboratories into one functioning unit with shared resources, staff, and expertise.
- Consolidated to East End laboratory the daily wastewater analyses for the four wastewater treatment facilities in order to improve consistency and reduce duplication of quality control requirements.
- Modified laboratory procedures as needed to meet evolving EPA and state standards to maintain accreditation for water and wastewater analyses.
- Consistently analyzed performance testing samples properly to maintain accreditation. Presently accredited for **71** tests.
- Managed the customer water quality inquiry process to ensure prompt and consistent response by appropriate staff; responded to approximately **213** calls per year.
- Contributed to the protection of public health by participating in the Maine Healthy Beaches program.
- Supported water and wastewater operations by providing accurate and timely water and wastewater quality data.
- Provided training in water quality and environmental regulation to District staff in all departments.

#### **Industrial Pretreatment since 2010:**

- Accomplished the adoption of local limits on Portland and Westbrook industrial dischargers each time facility permits were renewed.
- Created, implemented and updated Industrial Waste Surveys of the Portland, Westbrook-Gorham-Windham, Cape Elizabeth and Peaks Island systems to identify IPT industries.
- Managed all aspects of the Portland and Westbrook-Gorham IPT programs since 2018.
- Received 2015 Regional EPA Industrial Pretreatment Program Excellence Award.
- Implemented the new Dental Amalgam Rule by collecting one-time certification forms from more than **60** area dentists.
- Held two outreach events to connect to industrial pretreatment customers (one in Westbrook, one in Portland).
- Coordinated with **4** industrial users to solve chronic discharge issues by modifying and upgrading pretreatment or sampling.

## Past Accomplishments (continued)

### Budget Year 2021 Highlights:

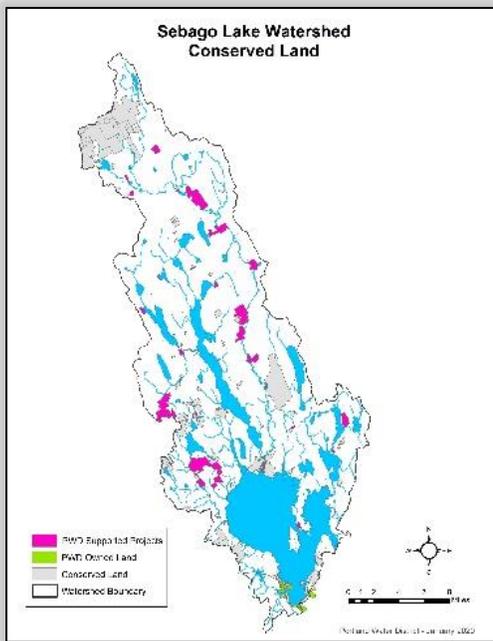
- Continued negotiations with the Natural Resources Conservation Service on a 5-year RCPP grant to conserve forests and accomplish other natural resources goals in the Sebago Lake watershed.
- Utilized a Source Water Protection Grant from the Maine Drinking Water Program to implement innovative erosion mitigation strategies in partnership with Sebago Lake State Park.
- Assumed oversight of the Total Coliform Rule distribution system monitoring program to support Water Operations.
- Represented the District on the Cumberland District Public Health Council.
- Provided laboratory support to the Maine Healthy Beach Program by testing East End beach for bacteria throughout the summer.
- Created and distributed two issues of the *Sebago In Depth* newsletter.
- Continued meeting with an environmental educators' group with local staff at Lakes Environmental Association and Cumberland County Soil & Water Conservation District to coordinate work and provide professional development.
- Continued outreach in the Sebago Lake Watershed, coordinating efforts with partners, meeting with officials from one town, and partnering on six initiatives.
- Completed the annual update to the PWD Incident Management Plan.
- Renewed all expiring Industrial Pretreatment permits on time. In 2021, 46% of all IPT permits expired and were renewed.
- Completed an Industrial Waste Survey of Portland system businesses and continue to follow-up on those that might require regulation via the IPT Program.
- Completed a monitoring project investigating Enterococcus bacteria in wastewater effluent in advance of future permitting requirements.
- Supported engineering group by producing over 100 pieces of analytical data to characterize Cape Elizabeth influent in advance of plant upgrades.
- Completed first full year of reporting biosolids metals utilizing the MEDEP required Electronic Data Deliverable (EDD) format.

## 2021 Environmental Services Highlights:

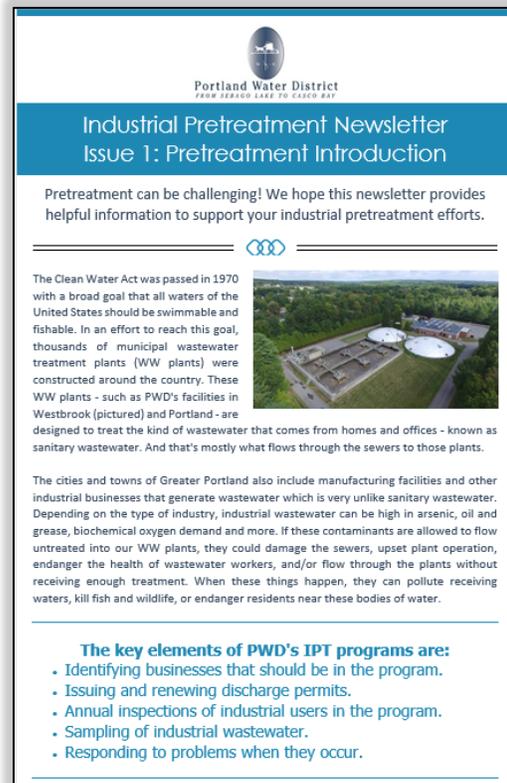


Completed a forest inventory of District-owned watershed protection lands that will be used in the development of a new Forest Management Plan.

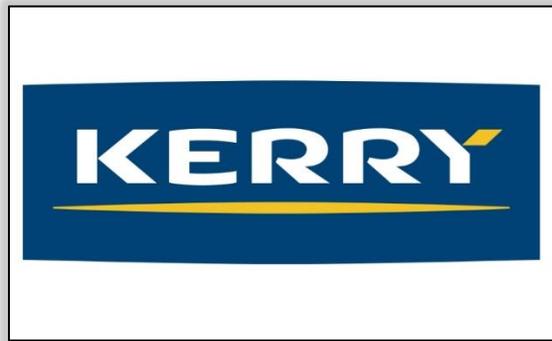
Partnered with Sebago Lake State Park and contracted with Tighe & Bond Engineering to design and install a shoreline stabilization and aggradation project on one of the most prolific eroding beaches on Sebago Lake.



Negotiated the terms of the \$8M RCPP award from the federal Natural Resources Conservation Service.

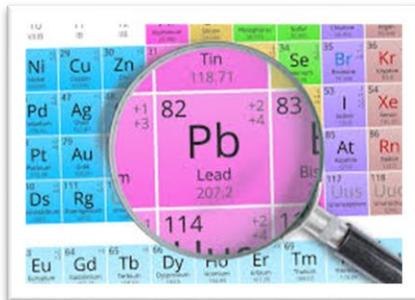


Published first issue of an on-going newsletter for IPT customers.



Reinstated the requirement for filling out permits at kiosks that had been suspended due to the pandemic.

Worked with Kerry, Inc., a coffee extract manufacturer in Portland, to move forward with infrastructure and treatment improvements to address recent issues.



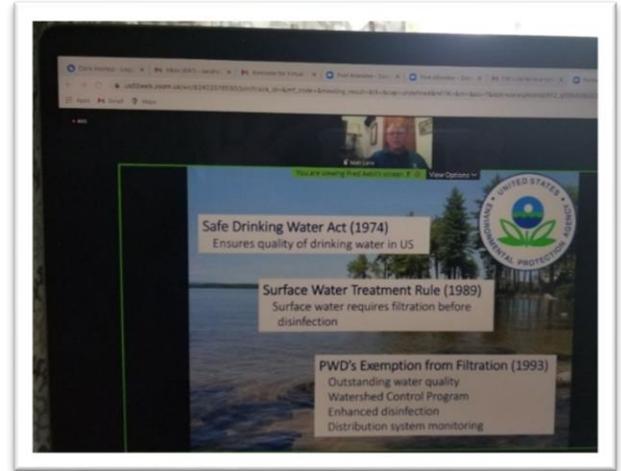
Completed Lead and Copper Rule triennial monitoring at 5 customer homes in Steep Falls.



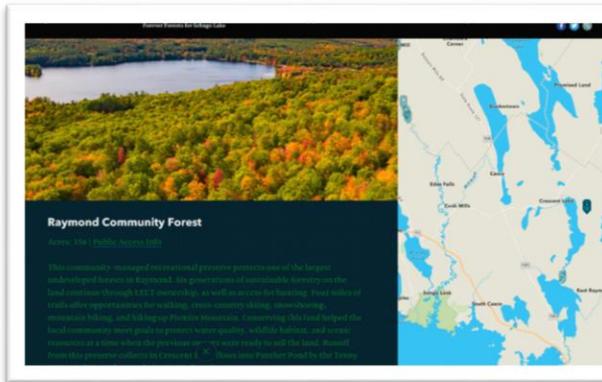
All 12 Land Reserve kiosks were disassembled and refreshed with paint, updated maps and hardware. Added to the kiosks are lockable bulletin boards where District messages are displayed to the public.



With the acquisition of property on Dog Leg Rd in Standish the Red Zone fencing was moved to accurately define the property lines.



Coordinated two sessions of virtual tours of the Sebago Lake Water Treatment Facility.



Created an ArcGIS StoryMap, *Forever Forests for Sebago Lake*, which includes a map of conservation projects the District has contributed to financially, as well as recreational, access, and partner information.



Distributed nearly 3,000 water bottles to watershed and service area schools to meet a critical need as water fountains were closed due the pandemic.



Created a video series, *From Sebago Lake to Casco Bay*, for middle school students that included a teacher guide and student activities.

## 2022 Projects and Initiatives

### Source Protection

- Implement Sebago Lake Phase IV: Utilize federal 319 grant funds to improve eroding sites around Sebago Lake, reducing the input of phosphorus and protecting water quality.
- Continue supporting the land conservation efforts of Sebago Clean Waters, including completing negotiations with NRCS and accomplishing RCPP deliverables.
- Work with the District's forester on an update of the District's Forest Management Plan for the Sebago Lake Land Reserve.
- Deploy the real-time water quality monitoring buoy in Lower Bay.
- Continue collaboration with the Town of Standish to influence management of the Rich Memorial Beach.
- Perform inspections of all property development in the shoreland zone of Sebago Lake.
- Provide technical assistance and grant funding for shoreland zone property owners, road associations and camps to improve storm water quality and mitigate soil erosion issues.
- Continue 10 lake and watershed water quality monitoring programs, analyze the data, and produce and post useful water reports.

- Monitor planning board agendas, provide technical assistance, and track large-scale projects such as subdivision and commercial development within the Sebago Lake watershed.
- Serve on the Rail Corridor Council chartered by the Maine Legislature to ensure the process considers the protection of Sebago Lake.

### Environmental Laboratories

- Maintain DHHS data quality requirements in each District laboratory for accreditation and data integrity.
- Report on customer Water Quality Inquiries including those at dead end locations.
- Continue safety awareness and improvements through hazard analysis, Global Harmonized System secondary container labeling, chemical inventory procedures and coordinating District hazardous waste removal.
- Provide training to District staff to improve data quality and understanding of water quality issues.
- Represent the District at Cumberland County EMA and Cumberland District Public Health Council meetings.
- Provide compliance and operations support to Water Operations, Wastewater Operations, Industrial Pretreatment Programs, the Source Protection program, and Engineering Services.

## **2022 Projects and Initiatives (cont'd)**

### **Industrial Pretreatment**

- Continue managing all aspects of the Westbrook-Gorham and Portland pretreatment programs.
- Renew all expiring Industrial Pretreatment permits.
- Collaborate with the City of Portland on a general permit program for breweries and other alcoholic beverage producers.
- Continue active membership in the MEWEA Industrial Pretreatment Committee.
- Provide periodic reports of IPT activity to the cities of Portland and Westbrook and the Town of Gorham.
- Continue periodic issues of the e-mail Industrial Pretreatment News to assist industries with compliance.

### **District Security & Preparedness**

- Exercise District's emergency preparedness with either a full-scale or tabletop exercise.
- Patrol Lower Bay by boat during summer, ensuring compliance with body contact and trespassing restrictions.
- Patrol Sebago Lake Land Reserve year-round to ensure compliance with District land use policy.
- Implement recommendations of the Maine Forest Service to enhance efforts to mitigate fire risk.
- Provide field oversight of District logging operations and track documentation.
- Support local first responders as requested in response to Sebago Lake rescue incidents.
- Patrol Lower Bay during ice fishing season to minimize impact of activity on water quality.

### **Environmental Education and Outreach**

- Hire a new, full time Environmental Educator.
- Stay abreast of educational trends in response to the pandemic and respond to teacher needs by developing and providing resources that relate to source protection principles, drinking water, and wastewater.
- Implement the sixth year of WaterWays in watershed and service area schools through in-class lessons and/or by providing remote resources and lesson materials in response to state and local pandemic regulations.
- If conditions permit, expand WaterWays into another school system by contracting with an educational organization.
- Continue to increase educational capacity through teacher consultations, grants, and the creation and loaning of educational resources.
- Conduct outreach to towns and groups in the upper Sebago Lake watershed to increase forest conservation and awareness of Sebago Clean Waters.
- Collaborate with partners, coordinate events, and serve as a resource for watershed and service area schools and groups to teach source protection and water stewardship principles.
- Utilize technology and a variety of media to connect the public with PWD events and environmental stewardship messages.
- Recognize Drinking Water Week with District-sponsored initiatives for the public.
- Provide outreach materials to the public including maps, calendars, and brochures.
- Provide support to the Southern Maine Children's Water Festival.

<b>2022 Grants to Watershed Partners</b>			
<b>2022 Proposed</b>	<b>Type</b>	<b>Recipient</b>	<b>Purpose</b>
\$2,500	Water Education Grants	Educators in the service area and watershed	Education
<i>Provides teaching resources to local teachers to support water education.</i>			
\$16,750	Lakescaping Grants	Watershed property owners, businesses	Source Protection
<i>Grants of up to \$1,000 are made to individual property owners and up to \$2,000 to businesses, associations, or municipalities for implementing erosion and sedimentation control BMPs based on our recommendations. A 50-50 match is required.</i>			
\$1,000	Lake Protection Support	Maine Lakes Society	Advocacy
<i>A contribution of \$1,000 to Maine Lakes Society to support their operations and \$250 to support their annual conference. Their advocacy benefits all surface supplies including PWD.</i>			
\$1,000	Lake Protection Support	Lake Stewards of Maine	Advocacy, Monitoring
<i>A contribution of \$1,000 to Lake Stewards of Maine to support their operations and \$250 to support their annual conference. Their outreach raises awareness statewide to issues of lake protection, particularly invasive aquatic plants. They conduct training at PWD and for PWD employees on request.</i>			
\$14,000	Watershed Organization Support	Lakes Environmental Association	Advocacy, Education, Source Protection
<i>LEA provides support for our upper watershed protection efforts. All lakes they work on ultimately lead to Sebago Lake. LEA monitors lake water quality and participates in the planning process in upper watershed towns to minimize development impact. Staff provides technical assistance to lakefront landowners on BMPs for lake protection and compliance with Shoreland zoning and the Natural Resources Protection Act. LEA also provides water-related education to area schools and operates the Lakes Science Center.</i>			
\$750	Watershed Organization Support	Raymond Waterways Protective Association	Outreach, Source Protection
<i>RWPA works on invasive plant control, BMP installation, and does outreach via a newsletter. They work on 319 (erosion control) projects in the indirect watershed of Sebago Lake. They also receive financial support from the town, grants, and individuals.</i>			
\$1,500	Land Trust Support	Loon Echo Land Trust	Source Protection
<i>Loon Echo's mission is to conserve land in the towns of Denmark, Bridgton, Harrison, Naples, Casco, Sebago, and Raymond. The trust's service area encompasses 126,000 acres – nearly half - of the Sebago Lake watershed. As they make progress in pursuit of their mission, our water supply is better protected.</i>			

<b>2022 Grants to Watershed Partners (Continued)</b>			
<b>2022 Proposed</b>	<b>Type</b>	<b>Recipient</b>	<b>Purpose</b>
\$1,500	Land Trust Support	Western Maine Foothills Land Trust	Source Protection
<i>The Western Foothills Land Trust is organized to conserve land in the towns of Otisfield, Norway, Bethel and Waterford, among others. The trust's service area encompasses 54,000 acres – about 20% - of the Sebago Lake watershed. As they make progress in pursuit of their mission, our water supply is better protected.</i>			
\$500	Land Trust Support	Presumpscot Regional Land Trust	Source Protection
<i>The Presumpscot Regional Land Trust is organized to conserve land in the towns of Gorham, Gray, Standish, Westbrook, and Windham. As they work to conserve land in parts of the watershed towns of Windham and Standish, our water supply is better protected. They are also the stewards of the Sebago to the Sea Trail that passes through District property.</i>			
\$500	Maine Water Conference Support	U Maine Mitchell Center	Public Relations
<i>Our support mostly serves a public relations function, ensuring the District's name on promotional materials. The conference also provides an opportunity to attract Maine colleges and Universities to research Sebago Lake.</i>			
\$800	Children's Water Festival	Southern Maine CWF Committee	Education, Public Relations
<i>Our support serves a PR purpose and contributes to the educational goal of the event, which is raising student awareness of water issues.</i>			
<b>\$40,800</b>	<b>Total Grant Support to Watershed Partners</b>		

## Financial Overview

### **A5: Water Resources**

The 2022 A5 budget has an increase of 3.4% over the 2021 budget.

- There are no proposed changes in staffing. Wage increases that result from contractual agreements were almost exactly offset by reductions in the cost of fringe benefits – so labor cost is flat overall.
- There is an increase of \$18,800 in contracted services. This reflects a number of important items including:
  - The Education budget for Technical Services was increased by about \$11,000 in anticipation of increasing the number of schools we serve with our WaterWays in-school programs. There are still several service area towns that do not benefit from these programs and, by subcontracting for education services, we plan to add another town without increasing staffing.
  - There is an additional \$2,000 for a boat repair contingency. Our boat is ready for replacement but, because of supply chain challenges, we likely will need to use the existing boat for another summer.
  - We budgeted \$2,500 to begin replacing marker buoys. Our intent is to replace a group of them each year until all are replaced.
  - We increased by \$3,000 the budgeted amount for repairs/maintenance of kiosk parking areas. Each year we choose one for maintenance and typically budget \$3,000 for this purpose. Because of the increases we're seeing in contractor quoted prices, we budgeted a larger amount.
- Our Transportation budget shows an increase of about \$11,423. There are two main reasons for this increase.
  - We added a \$7,500 flat charge to the A5 budget as the first payment on the new boat that we expect to purchase in 2022. It's anticipated cost is \$150,000 and it will be charged back to the A5 budget over a 20-year amortization period.
  - The rates for our vehicles were increased so, although they are expected to be used similarly, the overall cost of them has increased about 10%.

## Financial Overview (continued)

### **L6: Laboratory Services & IPT**

The 2022 L6 budget has an increase of 0.7% over the 2021 budget.

- There are no proposed changes in staffing.
- The Lab Analysis budget is up by just over \$4,000. The amount budgeted each year is driven by compliance schedules that are established by state and federal regulations so are out of our control. The main reason there is an increase in 2022 is for what's known as "WET testing." This stands for "Whole-Effluent Toxicity", a test which demonstrates that plant effluent is not adversely impacting aquatic life in the receiving waters. We are also required to perform testing for biosolid dioxin and PFAS that was not required in previous years.
- There are no other significant discretionary increases or decreases in the L6 budget. Both the Laboratory and IPT budgets are largely driven by mandatory actions and the budget reflects the costs of delivering those services.

<b>Conservation Land Acquired by Land Trusts with District Support</b>				
<b>Year</b>	<b>Projects</b>	<b>Acres</b>	<b>Amount of District Support</b>	<b>Total Value of Land Acquired in Fee or Easement</b>
2008	1	350	\$5,000	\$100,000
2009	1	23	\$500	\$25,000
2010	1	60	\$10,000	\$1,500,000
2011	1	690	\$9,250	\$750,000
2012	2	116	\$6,900	\$297,000
2013	4	1,005	\$68,990	\$718,500
2014	4	1,301	\$346,443	\$2,410,000
2015	3	145	\$25,585	\$130,600
2017	3	124	\$19,220	\$175,000
2018	3	1,646	\$370,994	\$1,781,000
2019	2	47	\$17,190	\$143,000
2020	2	57	\$13,285	\$68,500
2021	1	7,700	\$600,000*	\$3,800,000
<b>Totals</b>	<b>28</b>	<b>13,264</b>	<b>\$1,493,357</b>	<b>\$11,898,600</b>

\* Support approved but project not closed, closing expected in Dec. 2021.

**Environmental Services: Total****Financial Summary:**

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Sub-Group:</b>						
A5 - Water Resources	\$1,082,843	\$536,141	\$1,219,951	\$1,261,212	\$41,261	3.4%
L6 - Water/WW Laboratory	893,306	475,098	924,224	930,399	6,175	0.7%
<b>Grand Total</b>	<b>1,976,149</b>	<b>1,011,238</b>	<b>2,144,175</b>	<b>2,191,611</b>	<b>47,436</b>	<b>2.2%</b>
<b>Expense Type:</b>						
Salaries & Wages	\$1,092,675	\$536,550	\$1,109,755	\$1,139,425	\$29,670	2.7%
Employee Benefits	483,000	259,031	537,447	510,399	-27,048	-5.0%
Chemicals	5,676	3,209	5,700	5,900	200	3.5%
Contracted Services	118,596	51,292	123,456	149,901	26,445	21.4%
Heat/Fuel Oil	9,882	4,642	10,000	14,000	4,000	40.0%
Insurance	2,460	1,308	2,717	2,761	44	1.6%
Materials & Supplies	82,176	57,428	115,388	118,972	3,584	3.1%
Other Expense	132,040	73,715	180,776	180,108	-668	-0.4%
Purchased Power	4,309	1,956	5,441	5,859	418	7.7%
Tele/Other Utilities	5,819	2,559	5,495	5,675	180	3.3%
Transportation	39,517	19,549	48,000	58,611	10,611	22.1%
<b>Grand Total</b>	<b>1,976,149</b>	<b>1,011,238</b>	<b>2,144,175</b>	<b>2,191,611</b>	<b>47,436</b>	<b>2.2%</b>
<b>Headcount:</b>						
Full Time	15	15	15	15	0	0.0%
Part Time	1	1	1	1	0	0.0%
<b>Total</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>16</b>	<b>0</b>	<b>0.0%</b>

**Environmental Services: Total**

	2020 Actual	Jan-Jun 2021	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Salaries &amp; Wages</b>						
660111 - SALARIES/WAGES NON-UNION	\$444,136	\$233,921	\$457,523	\$467,663	\$10,140	2.2%
660121 - WAGES/REGULAR UNION	561,794	272,741	570,611	582,976	12,365	2.2%
660122 - WAGES/OVERTIME UNION	9,305	8,256	24,167	25,154	987	4.1%
660123 - WAGES/DOUBLETIME UNION	230	250	2,014	2,251	237	11.8%
660131 - WAGES - REGULAR - TEMPS	46,343	16,510	55,440	61,381	5,941	10.7%
660136 - CONTRACTED - TEMP	-	4,872	-	-	-	n/a
66014 - VACATION ACCRUAL	24,990	-	-	-	-	n/a
66015 - SICKTIME ACCRUAL	5,878	-	-	-	-	n/a
<b>Salaries &amp; Wages Total</b>	<b>1,092,675</b>	<b>536,550</b>	<b>1,109,755</b>	<b>1,139,425</b>	<b>29,670</b>	<b>2.7%</b>
<b>Employee Benefits</b>						
660401 - FICA - EMPLOYERS' SHARE	79,065	39,631	84,892	87,166	2,274	2.7%
660405 - SAFETY/WHY PROGRAM ITEMS	2,267	436	4,290	4,290	-	0.0%
6604151 - FIELD UNIFORMS	-	1,200	1,200	1,200	-	0.0%
660418 - STIPENDS	1,700	1,700	1,700	1,600	(100)	-5.9%
660419 - EMPLOYEE BENEFITS-MISC OTH	5,222	116	4,000	4,400	400	10.0%
660491 - FRINGE BENEFITS-REG/SAL	394,747	215,947	441,365	411,743	(29,622)	-6.7%
<b>Employee Benefits Total</b>	<b>483,000</b>	<b>259,031</b>	<b>537,447</b>	<b>510,399</b>	<b>(27,048)</b>	<b>-5.0%</b>
<b>Chemicals</b>						
661899 - OTHER CHEMICALS	5,676	3,209	5,700	5,900	200	3.5%
<b>Chemicals Total</b>	<b>5,676</b>	<b>3,209</b>	<b>5,700</b>	<b>5,900</b>	<b>200</b>	<b>3.5%</b>
<b>Contracted Services</b>						
66353 - REPAIR SERVICES	1,454	-	1,900	1,900	-	0.0%
66354 - MAINTENANCE SERVICES	40,241	27,590	41,366	48,116	6,750	16.3%
663546 - MAINTENANCE - SNOW REMOVL	6,610	3,200	10,500	11,000	500	4.8%
663551 - LAB ANALYSIS	48,939	10,426	30,590	34,635	4,045	13.2%
663553 - PHOTOGRAPHY SERVICES	-	-	600	600	-	0.0%
663562 - COMPUTER MAINTENANCE	-	1,399	-	-	-	n/a
663574 - DISPOSAL SERVICES	536	127	5,900	5,750	(150)	-2.5%
663587 - COURIER SERVICES	2,326	1,134	2,300	2,300	-	0.0%
663599 - MISC OTHER SERVICES	5,600	438	-	-	-	n/a
6636 - TECHNICAL SERVICES	12,891	6,977	30,300	45,600	15,300	50.5%
<b>Contracted Services Total</b>	<b>118,596</b>	<b>51,292</b>	<b>123,456</b>	<b>149,901</b>	<b>26,445</b>	<b>21.4%</b>
<b>Heat/Fuel Oil</b>						
661622 - CONTAINER DELIVERED	2,402	4,034	3,000	3,500	500	16.7%
66166 - UNLEADED GAS	7,480	608	7,000	10,500	3,500	50.0%
<b>Heat/Fuel Oil Total</b>	<b>9,882</b>	<b>4,642</b>	<b>10,000</b>	<b>14,000</b>	<b>4,000</b>	<b>40.0%</b>
<b>Insurance</b>						
66599 - PROPERTY & BOILER INSUR	2,460	1,308	2,717	2,761	44	1.6%
<b>Insurance Total</b>	<b>2,460</b>	<b>1,308</b>	<b>2,717</b>	<b>2,761</b>	<b>44</b>	<b>1.6%</b>

	2020 Actual	Jan-Jun 2021	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Materials &amp; Supplies</b>						
6619 - ASSET PURCHASES	\$1,529	\$3,334	\$12,200	\$12,400	\$200	1.6%
66202 - TOOLS	1,117	836	1,750	2,000	250	14.3%
66203 - VENDOR PURCHASED SUPPLIES	8,142	5,780	11,250	11,850	600	5.3%
662042 - SUPPLIES INVENTORY	976	468	1,700	1,700	-	0.0%
662043 - TOOL INVENTORY	867	318	1,650	1,650	-	0.0%
66204302 - INVENTORY - PAPER	-	-	300	300	-	0.0%
66204303 - INVENTORY-COMPUTER EQUIP	355	302	1,600	1,463	(137)	-8.6%
662047 - GARAGE INVENTORY	56	5	100	100	-	0.0%
66205 - CONSUMABLE SUPPLIES	67,546	46,370	78,850	80,350	1,500	1.9%
66206 - COMPUTER RELATED EQUIP	1,588	16	5,988	7,159	1,171	19.6%
<b>Materials &amp; Supplies Total</b>	<b>82,176</b>	<b>57,428</b>	<b>115,388</b>	<b>118,972</b>	<b>3,584</b>	<b>3.1%</b>
<b>Other Expense</b>						
66411 - INTERNAL RENTAL CHARGES	51,030	25,515	51,030	51,030	-	0.0%
6642 - EQUIPMENT RENT	-	-	300	300	-	0.0%
66601 - PUBLIC RELATIONS	4,110	1,000	9,900	4,700	(5,200)	-52.5%
66609 - OTHER ADVERTISING	2,382	1,964	3,400	4,600	1,200	35.3%
6675111 - INSTATE TRAINING/CONF	2,354	1,350	5,900	5,300	(600)	-10.2%
6675112 - OUT OF STATE TRAINING/CON	887	-	-	6,650	6,650	n/a
667513 - DUES	18,801	17,527	23,371	21,603	(1,768)	-7.6%
667514 - PROFESSIONAL LICENSES	295	4,531	4,795	1,275	(3,520)	-73.4%
667515 - PERIODICAL SUBSCRIPTIONS	268	126	580	580	-	0.0%
667521 - POSTAGE - THIRD PARTY	750	855	3,300	3,900	600	18.2%
667522 - POSTAGE - INTERNAL	719	8	825	875	50	6.1%
667523 - POSTAGE - EXPRESS DELIVER	25	-	75	125	50	66.7%
667531 - PRINTING COSTS	11,312	4,863	29,500	30,600	1,100	3.7%
667555 - SAFETY EXPENSES	79	-	100	100	-	0.0%
667561 - WATERSHED GRANTS/SUPPORT	36,969	14,888	41,450	42,200	750	1.8%
667591 - UNIFORMS	1,811	1,048	2,300	2,300	-	0.0%
667592 - FOOD SUPPLIES	30	40	3,950	3,970	20	0.5%
667599 - OTHER MISCELLANEOUS	216	-	-	-	-	n/a
<b>Other Expense Total</b>	<b>132,040</b>	<b>73,715</b>	<b>180,776</b>	<b>180,108</b>	<b>(668)</b>	<b>-0.4%</b>
<b>Purchased Power</b>						
66155 - POWER - SMALL ENERGY	2,160	969	2,676	2,508	(168)	-6.3%
66156 - POWER - SMALL T&D	2,149	986	2,765	3,351	586	21.2%
<b>Purchased Power Total</b>	<b>4,309</b>	<b>1,956</b>	<b>5,441</b>	<b>5,859</b>	<b>418</b>	<b>7.7%</b>
<b>Tele/Other Utilities</b>						
66101 - WATER	140	69	335	345	10	3.0%
66111 - TELEPHONE LINES	174	87	-	350	350	n/a
66112 - DATA LINES	207	93	540	540	-	0.0%
66113 - CELLULAR PHONES	5,298	2,310	4,620	4,440	(180)	-3.9%
<b>Tele/Other Utilities Total</b>	<b>5,819</b>	<b>2,559</b>	<b>5,495</b>	<b>5,675</b>	<b>180</b>	<b>3.3%</b>
<b>Transportation</b>						
66501 - TRANSPORTATION - INTERNAL	12,938	5,561	17,143	18,473	1,330	7.8%
665019 - TRANS INTERNAL INACTIVE	21,900	11,160	18,597	20,588	1,991	10.7%
66503 - MILEAGE REIMBURSEMENT	4,679	2,828	12,260	12,050	(210)	-1.7%
665018 - TRANS - LAKE BOAT FLAT	-	-	-	7,500	7,500	n/a
<b>Transportation Total</b>	<b>39,517</b>	<b>19,549</b>	<b>48,000</b>	<b>58,611</b>	<b>10,611</b>	<b>22.1%</b>
<b>Grand Total</b>	<b>1,976,149</b>	<b>1,011,238</b>	<b>2,144,175</b>	<b>2,191,611</b>	<b>47,436</b>	<b>2.2%</b>

## Environmental Services: Water Resources (A5)

### Financial Summary:

	2020 Actual	Jan-Jun 2021	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$635,410	\$304,538	\$644,775	\$664,107	\$19,332	3.0%
Employee Benefits	275,367	145,135	308,517	293,140	-15,377	-5.0%
Contracted Services	44,822	24,458	73,586	92,386	18,800	25.5%
Heat/Fuel Oil	9,882	4,642	10,000	14,000	4,000	40.0%
Insurance	2,460	1,308	2,717	2,761	44	1.6%
Materials & Supplies	12,064	9,652	31,838	34,159	2,321	7.3%
Other Expense	59,242	25,437	97,875	97,995	120	0.1%
Purchased Power	4,309	1,956	5,441	5,859	418	7.7%
Tele/Other Utilities	5,039	2,169	4,715	4,895	180	3.8%
Transportation	34,248	16,846	40,487	51,910	11,423	28.2%
<b>Grand Total</b>	<b>1,082,843</b>	<b>536,141</b>	<b>1,219,951</b>	<b>1,261,212</b>	<b>41,261</b>	<b>3.4%</b>
<b>Programs:</b>						
28 - Monitoring	\$213,577	\$95,735	\$211,718	\$220,532	\$8,814	4.2%
29 - Watershed Grants	1,435	10,984	0	2,443	2,443	n/a
41 - Pretreatment	5,718	2,040	8,338	7,951	-387	-4.6%
56 - Tech Ops Support	79,567	33,158	57,203	79,804	22,601	39.5%
78 - Education	91,332	56,500	130,837	139,496	8,659	6.6%
82 - Lake Security - Land	138,624	72,730	143,742	148,019	4,277	3.0%
83 - Customer Outreach	144,589	71,764	225,329	199,262	-26,067	-11.6%
84 - Lake Security - Water	33,382	10,990	43,372	58,790	15,418	35.5%
96 - Pandemic Costs	5,924	3,250	0	0	0	n/a
98 - Training	14,589	11,322	38,220	40,447	2,227	5.8%
99 - Administration	354,105	167,667	361,192	364,468	3,276	0.9%
<b>Grand Total</b>	<b>1,082,843</b>	<b>536,141</b>	<b>1,219,951</b>	<b>1,261,212</b>	<b>41,261</b>	<b>3.4%</b>
<b>Funds:</b>						
10 - General	\$283,199	\$133,041	\$275,146	\$280,094	\$4,948	1.8%
20 - Water General	793,718	401,059	936,467	971,721	35,254	3.8%
50 - Wastewater General	4,578	1,384	2,900	6,867	3,967	136.8%
57 - WW Portland	1,139	656	3,626	1,807	-1,819	-50.2%
61 - WW Gorham	69	0	362	0	-362	-100.0%
62 - WW Westbrook	139	0	1,450	723	-727	-50.1%
<b>Grand Total</b>	<b>1,082,843</b>	<b>536,141</b>	<b>1,219,951</b>	<b>1,261,212</b>	<b>41,261</b>	<b>3.4%</b>
<b>Headcount:</b>						
Full-Time	8	8	8	8	0	0.0%
Part-Time	1	1	1	1	0	n/a
<b>Total</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>9</b>	<b>0</b>	<b>0.0%</b>

## Environmental Services: Laboratory Service (L6)

### Financial Summary:

	2020 Actual	Jan-Jun 2021	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$457,265	\$232,012	\$464,980	\$475,318	\$10,338	2.2%
Employee Benefits	207,633	113,896	228,930	217,259	-11,671	-5.1%
Chemicals	5,676	3,209	5,700	5,900	200	3.5%
Contracted Services	73,774	26,833	49,870	57,515	7,645	15.3%
Materials & Supplies	70,111	47,777	83,550	84,813	1,263	1.5%
Other Expense	72,798	48,278	82,901	82,113	-788	-1.0%
Tele/Other Utilities	780	390	780	780	0	0.0%
Transportation	5,269	2,703	7,513	6,701	-812	-10.8%
<b>Grand Total</b>	<b>893,306</b>	<b>475,098</b>	<b>924,224</b>	<b>930,399</b>	<b>6,175</b>	<b>0.7%</b>
<b>Programs:</b>						
41 - Pretreatment	\$128,925	\$67,644	\$131,367	\$127,570	-\$3,797	-2.9%
56 - Tech Ops Support	69,096	44,355	66,656	98,578	31,922	47.9%
63 - Sample Analysis	332,725	188,771	370,954	368,813	-2,141	-0.6%
78 - Education	0	0	1,402	1,150	-252	-18.0%
96 - Pandemic Costs	9,199	0	0	0	0	n/a
98 - Training	22,181	12,969	28,524	30,721	2,197	n/a
99 - Administration	331,180	161,359	325,321	303,567	-21,754	n/a
<b>Grand Total</b>	<b>893,306</b>	<b>475,098</b>	<b>924,224</b>	<b>930,399</b>	<b>6,175</b>	<b>n/a</b>
<b>Funds:</b>						
10 - General	\$302,131	\$131,074	\$293,042	\$275,608	-\$17,434	-5.9%
20 - Water General	215,393	125,697	231,511	252,415	20,904	9.0%
50 - Wastewater General	255,176	159,283	285,619	286,664	1,045	0.4%
51 - WW Cape Elizabeth	6,534	548	2,511	4,634	2,123	84.5%
55 - WW Windham LF	585	486	415	393	-22	-5.3%
57 - WW Portland	71,191	30,433	69,277	69,824	547	0.8%
61 - WW Gorham	8,581	5,377	5,460	6,412	952	17.4%
62 - WW Westbrook	18,832	11,565	19,646	19,112	-534	-2.7%
64 - WW Joint Westbrook	11,090	9,647	12,249	13,347	1,098	9.0%
66 - WW Peaks Island	3,793	989	4,494	1,990	-2,504	-55.7%
<b>Grand Total</b>	<b>893,306</b>	<b>475,098</b>	<b>924,224</b>	<b>930,399</b>	<b>6,175</b>	<b>0.7%</b>
<b>Headcount:</b>						
Full-Time	7	7	7	7	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>0</b>	<b>0.0%</b>

## Industrial Pretreatment Programs

IPT programs were developed for the Portland and Westbrook sewer collection systems in order to shield the treatment works from industrial wastewater that may potentially disrupt proper treatment.



**IPT Spotlight:**  
Schlotterbeck and Foss is a specialty food manufacturer that produces condiments, sauces, marinades, salsas, jams and spreads, as well as other items. They operated in Portland for over a century before moving to Westbrook in 2015. The new Schlotterbeck and Foss facility was permitted in PWD’s Westbrook-Gorham IPT Program in 2016.

This customer is a smaller water user – typically consuming around 970 HCF of water used annually.

After their move to Westbrook, the city began to experience issues in the Westbrook sewer collection system. In response, Schlotterbeck and Foss upgraded their pretreatment equipment. A Dissolved Air Flootation (DAF) system was installed in January 2020. This system removes solids and grease from the wastewater prior to discharge. Since the upgrade, Schlotterbeck and Foss has been routinely able to meet wastewater discharge limits and the operation of the sewer system has been greatly improved.

**Industrial Pretreatment Program  
 For the Year Ending December 31,2020**

	<u>Gorham</u>	<u>Portland</u>	<u>Westbrook</u>	<u>Windham</u>
<b><u>Revenue</u></b>	1,856	304,198	19,305	-
<b><u>Expense</u></b>				
Salaries	10,718	57,298	20,326	976
Benefits	5,057	26,880	9,572	459
Transportation	321	1,276	421	6
Lab Analysis	1,399	9,276	3,144	214
Other Expense	<u>764</u>	<u>2,746</u>	<u>1,299</u>	<u>79</u>
	18,259	97,476	34,762	1,734
<b>2020 Net Income</b>	(16,403)	206,722	(15,457)	(1,734)
2019 Net Income	(11,878)	279,020	(16,995)	(2,088)

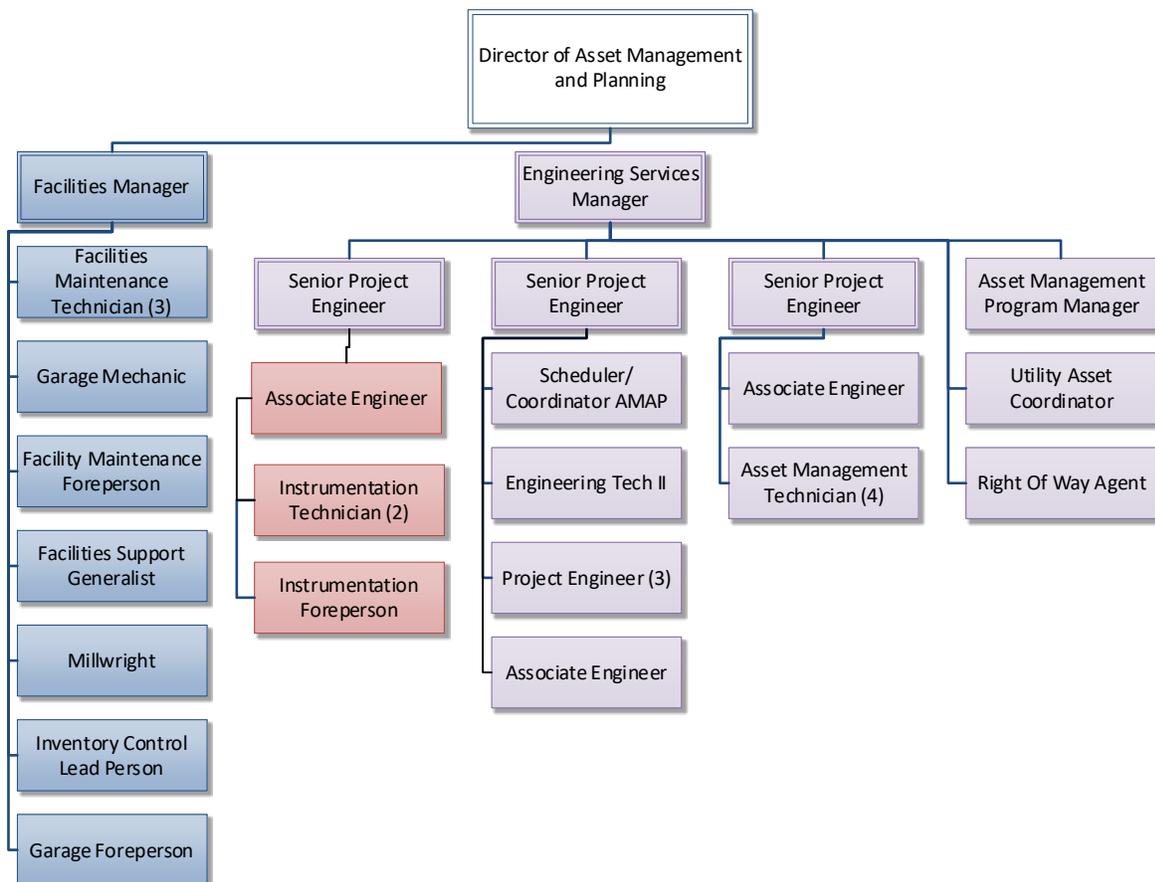
## Engineering Services - Purpose Statement

To provide direct and supported design and construction of water, wastewater and administrative infrastructure and support an asset management approach to infrastructure acquisition and maintenance.

## Core Services

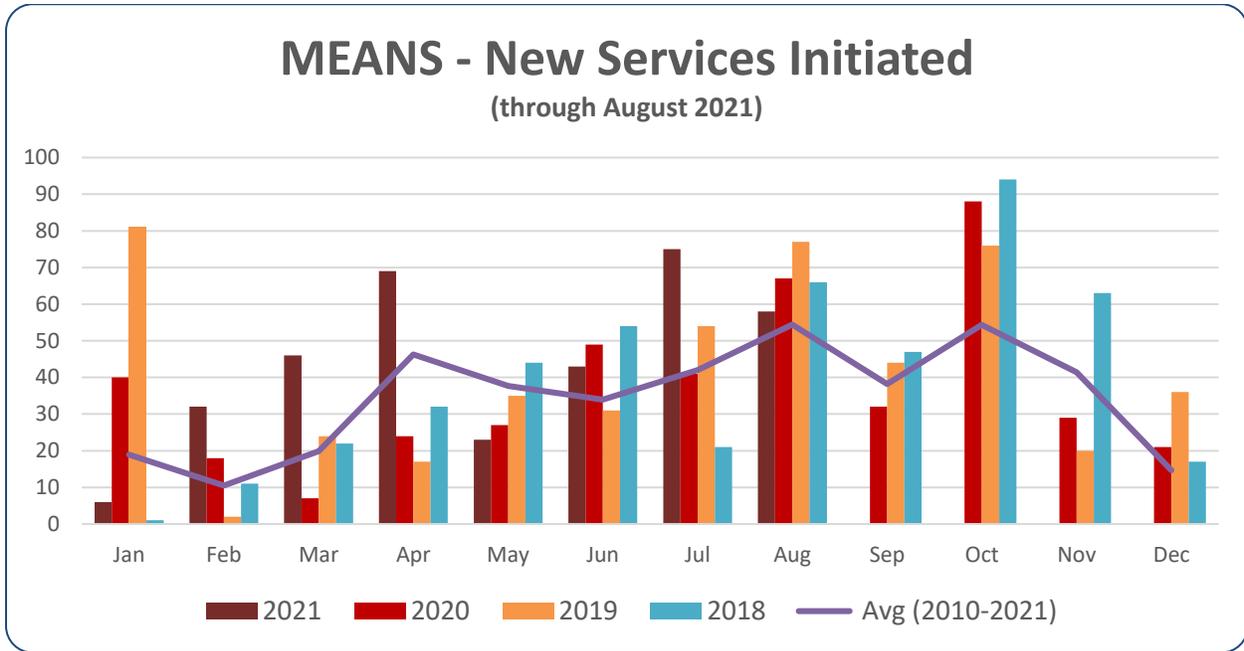
Engineering Services is responsible for providing engineering and maintenance services to internal and external customers. They are responsible for the following services:

- Manages planning and design of developer installed water and sewer infrastructure and coordination of existing District field and facilities assets. Supports long range planning, alternatives evaluation, and detailed design development of water main renewal programs as well as treatment and pumping facility projects. Provides construction oversight/recordkeeping for all infrastructure projects. (Asset Engineering Services Group-E2; purple in organization chart).
- Responsible for operation and maintenance of administrative facilities. Provides facility support services including garage, structural maintenance and stock room services (Facility Services Group-C1; blue in organization chart).
- Provides design, installation, maintenance and technical support of the Supervisory Control and Data Acquisition (SCADA) systems (SCADA Services Group-E7; red in organization chart).



**Key Statistics**

**New Water Services**



**Assets in the Asset Information Management System (AIM)**

Facilities	141
Facility Processes & Systems	1,325
Equipment/Components	11,212
Vehicles/Heavy Equipment	112
Water Service Association Assets (meters, backflows, etc.)	223,882
Water Field Assets	48,069
Sewer Field Assets	7,074
<b>Total Assets</b>	<b>291,815</b>

**Performance Benchmarks**

	2020 Actual	2021 Budget	2022 Budget
<b>Corporate Goal – Reliability</b>			
Leaks per 100 miles of main	9.0	<10	<10
Main Renewals, feet	16,000	24,000	20,000
Main Extensions, feet	18,140	24,000	24,000
<b>Corporate Goal - Affordability</b>			
New Water Services	443	450	450
<b>Corporate Goal – Employees and Work Environment</b>			
Employee Training Hours	75	80	80

## Past Accomplishments

- Managed design/installation of 4 miles of water main renewals and 4 miles of extensions.
- Completion of Depot St wastewater pump station in South Windham and removal of siphon.
- Completion of the 407 North connection with 407 south and 16" transmission system on Depot Street from Main Street to River Road.
- Procured for Engineering Services related to design of wastewater collection and treatment infrastructure in North Windham and selected sites for New Treatment Facility and disposal.
- Started construction of EEWWTF medium voltage power distribution system to address resiliency and reliability issues.
- Managed and completed the HVAC upgrades for EEWWTF 3<sup>rd</sup> Floor and HVAC upgrades at EEWWTF dewatering area and CEWWTF.
- Managed and completed Tide Gate replacements at India St and Northeast Pump Stations.
- Started construction of the Westbrook Gorham Windham Regional WWTF aeration, clarifier and power upgrades.
- Managed design and construction of water main replacement program including major transmission main crossing projects with the Turnpike Authority and various municipalities.
- Implemented the computerized maintenance management system (CMMS) software as part of Central Square Asset Management Project.
- Worked with water and wastewater operations and environmental services staff to improve asset data and AIM understanding and prepare for CMMS transition.
- Managed and installed HVAC disinfection for Douglass Street, East End, SLWTF, and Ecology Center in response to COVID-19 pandemic.

## 2022 Projects and Initiatives

### **Corporate Goals – Reliability and Affordability**

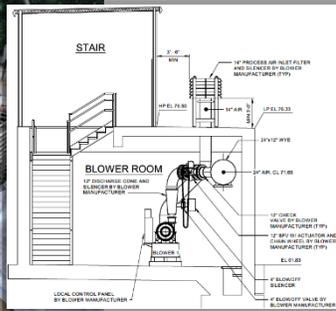
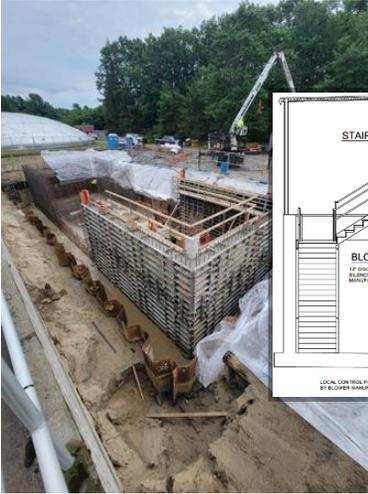
- Manage and support vertical asset upgrade projects (WEWWTF aeration, clarifier and power upgrades, Windham Water Storage Tank, EEWWTF Backup Power, Baxter PS upgrade, etc.)
- Improve water main replacement programs and manage design and delivery of projects.
- Manage and support design and construction associated with 3 Maine Turnpike infrastructure crossing upgrades.
- Continue to lead and support implementation of Central Square EAM CMMS software.
- Continue to work with Operations, and Environmental Services to improve AIM data and configure CMMS.
- Manage facilities projects around District including HVAC and roof upgrades.
- Provide core support of asset management and CMMS implementation.

### **Corporate Goal – Employees and Work Environment**

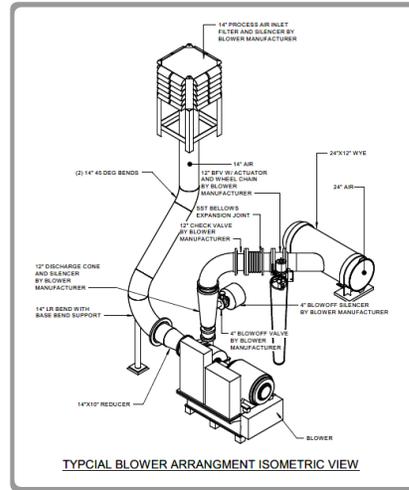
- Maintain an average of 80 hours of training per employee.
- Continue to support ongoing workplace safety management and training.

### 2021 Highlights

Managed WEWTF aeration and secondary clarifier upgrade project.



Completed the EEWTF 3<sup>rd</sup> Floor HVAC grades.



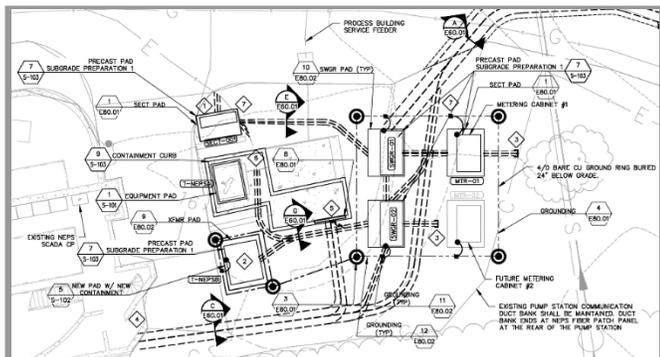
Design and construction support for the remaining 3 infrastructure crossings in support



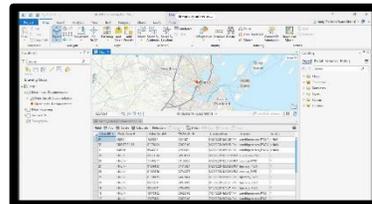
Managed and completed the Depot Street PS construction



Managed design and construction of Maiden Cove Pump Station upgrade project.

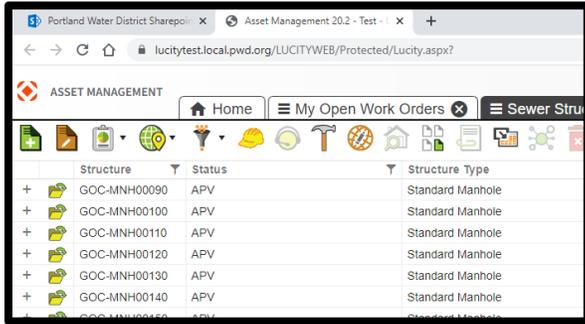


Manage the construction of EEWTF Medium Voltage Power Distribution Upgrade



Lead conversion to new CMMS

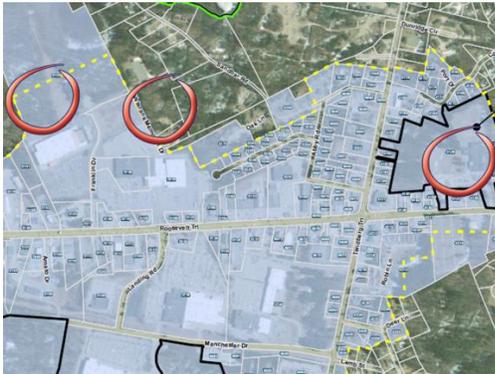
## 2022 Projects and Initiatives



Continue to lead and support CMMS upgrade project.



Lead program to prioritize, design and construct water main replacement program.



North Windham’s Sewer - Completion of the Preliminary Design for Collection, Treatment and Disposal.



EEWWTF - Primary Gallery Upgrades Project - Completion of design and start construction.



Douglass Street Facility – Complete the last phase of the Slate Roof replacement and start phase 1 of the HVAC replacement project.

## **Financial Overview**

The Engineering Services 2022 budget request is \$4,443,069 which is \$115,263 or 2.7% higher than last year's budget. The department consists of 3 subgroups – Facility Services (C1), Asset Engineering (E2) and SCADA Services (E7).

**C1** - Facility Services' budget increased by \$36,478 or 1.8%. The increase can be attributed to an almost 38% increase in budgeted gas prices (\$1.59 to \$2.19), in comparison to last year's budget, and pandemic processes that have increased vehicle usage.

**E2** - Asset Engineering's budget decreased by (\$4,403) or 0.2%. The decrease is due to total employee benefits costs for the District being down significantly because of the 50% decrease in our required pension contribution. The impact in E2 was a reduction in Employee Benefits expense of \$37,536.

**E7** - SCADA Services' budget increased \$83,188 or 22.4% primarily attributed to adding an Associate Engineers position along with associated benefits, training and equipment. This proposed addition to the staff is due to the continued growth of the SCADA/instrumentation system and the continued demand for automation of the processes.

## Engineering Services – Total

### Financial Summary

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Sub-Group:</b>						
C1 - Facilities Services	\$1,724,241	\$924,837	\$1,982,511	\$2,018,989	\$36,478	1.8%
E2 - Asset Engineering	1,889,745	1,058,480	1,974,064	1,969,661	-4,403	-0.2%
E7 - Instrumentation	354,646	174,684	371,231	454,419	83,188	22.4%
<b>Grand Total</b>	<b>3,968,632</b>	<b>2,158,002</b>	<b>4,327,806</b>	<b>4,443,069</b>	<b>115,263</b>	<b>2.7%</b>

<b>Expense Type:</b>						
Salaries & Wages	\$2,024,548	\$1,063,717	\$2,088,725	\$2,182,004	\$93,279	4.5%
Employee Benefits	908,619	533,610	1,046,470	1,016,019	-30,451	-2.9%
Contracted Services	424,255	249,795	463,461	458,461	-5,000	-1.1%
Heat/Fuel Oil	58,691	39,826	75,350	72,500	-2,850	0.0%
Insurance	49,450	26,936	51,697	59,259	7,562	14.6%
Materials & Supplies	347,424	193,650	449,507	491,598	42,091	9.4%
Other Expense	-99,618	-79,489	-126,680	-128,495	-1,815	1.4%
Purchased Power	76,567	39,221	82,492	86,166	3,674	4.5%
Regulatory/Taxes	2,835	550	2,500	2,500	0	0.0%
Tele/Other Utilities	83,381	44,168	87,362	88,468	1,106	1.3%
Transportation	92,480	46,018	106,922	114,589	7,667	7.2%
<b>Grand Total</b>	<b>3,968,632</b>	<b>2,158,002</b>	<b>4,327,806</b>	<b>4,443,069</b>	<b>115,263</b>	<b>2.7%</b>

<b>Headcount:</b>						
Full Time	31	31	31	32	1	3.2%
Part Time	0	0	0	0	0	n/a
<b>Total</b>	<b>31</b>	<b>31</b>	<b>31</b>	<b>32</b>	<b>1</b>	<b>3.2%</b>

	2020 Actual	Jan-Jun 2021	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Salaries &amp; Wages</b>						
660111 - SALARIES/WAGES NON-UNION	\$1,049,193	\$592,433	\$1,113,262	\$1,175,259	\$61,997	5.6%
660121 - WAGES/REGULAR UNION	881,257	459,178	919,207	947,339	28,132	3.1%
660122 - WAGES/OVERTIME UNION	7,150	2,305	12,942	12,295	(647)	-5.0%
660123 - WAGES/DOUBLETIME UNION	237	-	588	324	(264)	-44.9%
660124 - WAGES/STANDBY TIME UNION	258	-	1,286	907	(379)	-29.5%
660131 - WAGES - REGULAR - TEMPS	3,297	-	41,440	45,880	4,440	10.7%
660136 - CONTRACTED - TEMP	35,203	9,801	-	-	-	n/a
66014 - VACATION ACCRUAL	38,310	-	-	-	-	n/a
66015 - SICKTIME ACCRUAL	9,643	-	-	-	-	n/a
<b>Salaries &amp; Wages Total</b>	<b>2,024,548</b>	<b>1,063,717</b>	<b>2,088,725</b>	<b>2,182,004</b>	<b>93,279</b>	<b>4.5%</b>
<b>Employee Benefits</b>						
660401 - FICA - EMPLOYERS' SHARE	148,687	84,058	159,783	166,925	7,142	4.5%
660405 - SAFETY/WHY PROGRAM ITEMS	4,989	1,481	7,675	8,250	575	7.5%
660411 - MEALS ALLOWANCE	20	-	100	100	-	0.0%
660418 - STIPENDS	1,800	1,900	2,200	2,100	(100)	-4.5%
660419 - EMPLOYEE BENEFITS-MISC OTH	9,808	75	4,200	6,800	2,600	61.9%
660491 - FRINGE BENEFITS-REG/SAL	743,315	446,096	872,512	831,844	(40,668)	-4.7%
<b>Employee Benefits Total</b>	<b>908,619</b>	<b>533,610</b>	<b>1,046,470</b>	<b>1,016,019</b>	<b>(30,451)</b>	<b>-2.9%</b>
<b>Contracted Services</b>						
6631 - ENGINEERING SERVICES	14,476	9,343	5,000	5,000	-	0.0%
663525 - CONTRACTOR CONSTRUCTION	26,259	28,843	-	-	-	n/a
663526 - INSPECTION SERVICES	1,728	-	-	-	-	n/a
66353 - REPAIR SERVICES	166	3,000	17,500	17,500	-	0.0%
66354 - MAINTENANCE SERVICES	229,114	108,035	268,700	266,700	(2,000)	-0.7%
663546 - MAINTENANCE - SNOW REMOVL	30,833	12,372	25,000	25,000	-	0.0%
663561 - COMPUTER LICENSES	41,724	12,828	35,461	35,461	-	0.0%
663562 - COMPUTER MAINTENANCE	2,232	48,564	45,000	45,000	-	0.0%
663563 - COMPUTER CONSULTING/OTHER	-	330	600	600	-	0.0%
663574 - DISPOSAL SERVICES	14,704	3,154	23,900	21,400	(2,500)	-10.5%
663587 - COURIER SERVICES	9,324	4,547	9,800	9,300	(500)	-5.1%
663589 - SECURITY SERVICES	20,156	-	-	-	-	n/a
6635985 - VEHICLE FLEET GPS SERVICE	21,560	10,780	25,000	25,000	-	0.0%
663599 - MISC OTHER SERVICES	-	-	2,500	2,500	-	0.0%
6636 - TECHNICAL SERVICES	11,980	8,000	5,000	5,000	-	0.0%
<b>Contracted Services Total</b>	<b>424,255</b>	<b>249,795</b>	<b>463,461</b>	<b>458,461</b>	<b>(5,000)</b>	<b>-1.1%</b>
<b>Heat/Fuel Oil</b>						
661621 - PIPELINE DELIVERED PROPAN	50,146	34,846	58,850	56,000	(2,850)	-4.8%
66166 - UNLEADED GAS	8,546	4,980	16,500	16,500	-	0.0%
<b>Heat/Fuel Oil Total</b>	<b>58,691</b>	<b>39,826</b>	<b>75,350</b>	<b>72,500</b>	<b>(2,850)</b>	<b>-3.8%</b>

	2020 Actual	Jan-Jun 2021	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Insurance</b>						
6656 - VEHICAL INSURANCE	\$37,223	\$20,160	\$38,731	\$44,353	\$5,622	14.5%
66593 - UMBRELLA INSURANCE COVER	6,558	3,559	7,009	7,830	821	11.7%
66599 - PROPERTY & BOILER INSUR	5,669	3,216	5,957	7,076	1,119	18.8%
<b>Insurance Total</b>	<b>49,450</b>	<b>26,936</b>	<b>51,697</b>	<b>59,259</b>	<b>7,562</b>	<b>14.6%</b>
<b>Materials &amp; Supplies</b>						
6619 - ASSET PURCHASES	10,276	4,570	45,250	45,800	550	1.2%
66202 - TOOLS	7,466	2,489	7,250	7,000	(250)	-3.4%
66203 - VENDOR PURCHASED SUPPLIES	181,004	104,795	185,700	180,700	(5,000)	-2.7%
662041 - MATERIALS INVENTORY	(7,344)	2,405	7,800	7,250	(550)	-7.1%
662042 - SUPPLIES INVENTORY	11,451	(16,991)	15,200	13,000	(2,200)	-14.5%
66204201 - INVENTORY - QPR	308	1,114	-	-	-	n/a
662043 - TOOL INVENTORY	2,492	3,791	10,900	10,450	(450)	-4.1%
66204301 - INVENTORY - TONER	82	(9)	-	-	-	n/a
66204302 - INVENTORY - PAPER	405	163	-	-	-	n/a
66204303 - INVENTORY-COMPUTER EQUIP	3,777	401	1,700	1,700	-	0.0%
662044 - METER INVENTORY	(54,399)	3,257	-	-	-	n/a
662046 - HYDRANT INVENTORY	(1,193)	512	-	-	-	n/a
662047 - GARAGE INVENTORY	9,291	5,896	10,825	10,325	(500)	-4.6%
66204701 - INVENTORY - UNLEADED GAS	121,593	59,937	84,620	120,669	36,049	42.6%
66204702 - INVENTORY - DIESEL	42,997	15,540	36,895	45,570	8,675	23.5%
66204703 - INVENTORY - TIRES	11,521	3,498	15,000	15,000	-	0.0%
66205 - CONSUMABLE SUPPLIES	66	-	3,050	2,750	(300)	-9.8%
66206 - COMPUTER RELATED EQUIP	7,631	2,282	25,317	31,384	6,067	24.0%
<b>Materials &amp; Supplies Total</b>	<b>347,424</b>	<b>193,650</b>	<b>449,507</b>	<b>491,598</b>	<b>42,091</b>	<b>9.4%</b>
<b>Other Expense</b>						
6642 - EQUIPMENT RENT	1,778	-	3,500	3,500	-	0.0%
66609 - OTHER ADVERTISING	515	-	-	-	-	n/a
6675111 - INSTATE TRAINING/CONF	10,989	6,165	15,000	15,000	-	0.0%
6675112 - OUT OF STATE TRAINING/CON	1,521	225	8,100	9,100	1,000	12.3%
667513 - DUES	894	50	3,000	3,000	-	0.0%
667514 - PROFESSIONAL LICENSES	1,137	1,680	3,880	3,880	-	0.0%
667515 - PERIODICAL SUBSCRIPTIONS	48	-	800	800	-	0.0%
667522 - POSTAGE - INTERNAL	98	18	350	325	(25)	-7.1%
667523 - POSTAGE - EXPRESS DELIVER	1,548	774	1,300	1,200	(100)	-7.7%
667531 - PRINTING COSTS	55	-	-	-	-	n/a
667552 - SAFETY TRAINING	-	-	750	750	-	0.0%
667555 - SAFETY EXPENSES	-	-	3,000	2,500	(500)	-16.7%
667556 - FREIGHT CHARGES (STOCK)	-	-	3,000	2,700	(300)	-10.0%
667592 - FOOD SUPPLIES	-	-	50	100	50	100.0%
667599 - OTHER MISCELLANEOUS	3,024	1,231	550	1,050	500	90.9%
6676 - EXPENSE OFFSET	(121,451)	(89,632)	(169,960)	(172,400)	(2,440)	1.4%
6675121 - IN STATE CONFERENCES	225	-	-	-	-	n/a
<b>Other Expense Total</b>	<b>(99,618)</b>	<b>(79,489)</b>	<b>(126,680)</b>	<b>(128,495)</b>	<b>(1,815)</b>	<b>1.4%</b>

	2020 Actual	Jan-Jun 2021	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Purchased Power</b>						
66153 - POWER - MEDIUM ENERGY	\$49,414	\$27,238	\$48,503	\$46,398	(\$2,105)	-4.3%
66154 - POWER - MEDIUM T&D	24,340	10,640	30,777	36,528	5,751	18.7%
66155 - POWER - SMALL ENERGY	1,377	652	1,539	1,348	(191)	-12.4%
66156 - POWER - SMALL T&D	1,436	690	1,673	1,892	219	13.1%
<b>Purchased Power Total</b>	<b>76,567</b>	<b>39,221</b>	<b>82,492</b>	<b>86,166</b>	<b>3,674</b>	<b>4.5%</b>
<b>Regulatory/Taxes</b>						
667516 - PERMITS	2,835	550	2,500	2,500	-	0.0%
<b>Regulatory/Taxes Total</b>	<b>2,835</b>	<b>550</b>	<b>2,500</b>	<b>2,500</b>	<b>-</b>	<b>0.0%</b>
<b>Tele/Other Utilities</b>						
66101 - WATER	3,691	2,050	5,000	5,000	-	0.0%
66102 - WASTEWATER	5,366	3,189	7,500	7,500	-	0.0%
66103 - STORMWATER CHARGES	13,928	7,331	14,094	15,100	1,006	7.1%
66111 - TELEPHONE LINES	23,785	11,974	20,792	20,792	-	0.0%
66112 - DATA LINES	28,406	14,996	32,246	32,606	360	1.1%
66113 - CELLULAR PHONES	8,205	4,210	7,680	7,420	(260)	-3.4%
66114 - PAGERS	-	-	50	50	-	0.0%
6609 - UTILITIES/SUPPLIES	-	419	-	-	-	n/a
<b>Tele/Other Utilities Total</b>	<b>83,381</b>	<b>44,168</b>	<b>87,362</b>	<b>88,468</b>	<b>1,106</b>	<b>1.3%</b>
<b>Transportation</b>						
66501 - TRANSPORTATION - INTERNAL	22,727	13,199	32,842	35,215	2,373	7.2%
665019 - TRANS INTERNAL INACTIVE	67,635	31,735	67,430	72,624	5,194	7.7%
66502 - TRANSPORTATION - EXTERNAL	963	714	3,800	3,850	50	1.3%
66503 - MILEAGE REIMBURSEMENT	1,155	371	2,850	2,900	50	1.8%
<b>Transportation Total</b>	<b>92,480</b>	<b>46,018</b>	<b>106,922</b>	<b>114,589</b>	<b>7,667</b>	<b>7.2%</b>
<b>Grand Total</b>	<b>3,968,632</b>	<b>2,158,002</b>	<b>4,327,806</b>	<b>4,443,069</b>	<b>115,263</b>	<b>2.7%</b>

## Engineering Services - Facilities Services (C1)

### Financial Summary

	2020 Actual	Jan-Jun 2021	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$513,032	\$271,609	\$571,324	\$585,242	\$13,918	2.4%
Employee Benefits	235,922	136,517	284,326	270,227	-14,099	-5.0%
Contracted Services	363,660	178,730	374,900	369,900	-5,000	-1.3%
Heat/Fuel Oil	58,691	39,826	75,350	72,500	-2,850	-3.8%
Insurance	49,450	26,936	51,697	59,259	7,562	14.6%
Materials & Supplies	325,748	184,033	410,482	441,468	30,986	7.5%
Other Expense	-29,185	-16,193	-7,160	-10,525	-3,365	47.0%
Purchased Power	76,567	39,221	82,492	86,166	3,674	4.5%
Regulatory/Taxes	2,785	550	2,500	2,500	0	0.0%
Tele/Other Utilities	71,641	36,124	71,026	71,712	686	1.0%
Transportation	55,929	27,484	65,574	70,540	4,966	7.6%
<b>Grand Total</b>	<b>1,724,241</b>	<b>924,837</b>	<b>1,982,511</b>	<b>2,018,989</b>	<b>36,478</b>	<b>1.8%</b>
<b>Programs:</b>						
23 - Stockroom Operations	\$40,148	\$42,782	\$129,950	\$124,516	-\$5,434	-4.2%
24 - Distribution Operations	7,933	3,245	20,859	19,331	-1,528	-7.3%
30 - Maintenance	144,343	115,154	241,280	191,398	-49,882	-20.7%
55 - Prof Ops Support	51,287	41,779	84,007	78,526	-5,481	-6.5%
90 - Vehicles	540,809	313,564	612,759	655,056	42,297	6.9%
93 - Stockroom Scrap	0	-2,244	0	0	0	n/a
95 - Douglass Street	659,888	331,891	683,146	701,592	18,446	2.7%
96 - Pandemic Costs	43,944	8,368	0	0	0	n/a
98 - Training	41,851	14,924	46,950	51,559	4,609	9.8%
99 - Administration	194,038	55,375	163,560	197,011	33,451	20.5%
<b>Grand Total</b>	<b>1,724,241</b>	<b>924,837</b>	<b>1,982,511</b>	<b>2,018,989</b>	<b>36,478</b>	<b>1.8%</b>
<b>Funds:</b>						
10 - General	\$1,479,785	\$724,122	\$1,506,415	\$1,605,218	\$98,803	6.6%
20 - Water General	187,774	139,536	349,753	288,063	-61,690	-17.6%
30 - Water Standish	368	167	3,176	3,126	-50	-1.6%
51 - WW Cape Elizabeth	13,308	11,396	24,385	24,375	-10	0.0%
53 - WW Cumberland	5,222	4,698	8,486	9,845	1,359	16.0%
55 - WW Windham LF	1,548	268	676	1,613	937	138.6%
57 - WW Portland	15,605	16,062	55,108	51,319	-3,789	-6.9%
61 - WW Gorham	4,430	1,879	7,660	8,251	591	7.7%
62 - WW Westbrook	3,958	5,033	4,696	5,459	763	16.2%
64 - WW Joint Westbrook	7,387	15,218	15,875	14,609	-1,266	-8.0%
65 - WW Joint LF	777	133	1,500	1,615	115	7.7%
66 - WW Peaks Island	4,078	6,325	4,781	5,496	715	15.0%
<b>Grand Total</b>	<b>1,724,241</b>	<b>924,837</b>	<b>1,982,511</b>	<b>2,018,989</b>	<b>36,478</b>	<b>1.8%</b>
<b>Headcount:</b>						
Full-Time	10	10	10	10	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>0</b>	<b>0.0%</b>

## Engineering Services - Asset Engineering Services (E2)

### Financial Summary

	2020 Actual	Jan-Jun 2021	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$1,314,904	\$697,312	\$1,326,823	\$1,348,531	\$21,708	1.6%
Employee Benefits	586,214	349,502	666,950	629,414	-37,536	-5.6%
Contracted Services	30,276	58,477	57,450	57,450	0	0.0%
Materials & Supplies	9,820	3,259	17,200	26,505	9,305	54.1%
Other Expense	-74,970	-63,948	-125,570	-124,020	1,550	-1.2%
Regulatory/Taxes	50	0	0	0	0	n/a
Tele/Other Utilities	7,499	6,410	11,986	11,986	0	0.0%
Transportation	15,953	7,469	19,225	19,795	570	3.0%
<b>Grand Total</b>	<b>1,889,745</b>	<b>1,058,480</b>	<b>1,974,064</b>	<b>1,969,661</b>	<b>-4,403</b>	<b>-0.2%</b>
<b>Programs:</b>						
29 - Watershed Grants	\$0	\$1,421	\$0	\$0	\$0	n/a
57 - Means Coordination	497,193	249,325	422,905	361,824	-61,081	-14.4%
59 - Land Matters	0	7,821	0	47,165	47,165	n/a
79 - Amap Services	432,971	242,413	475,715	499,554	23,839	5.0%
81 - Instrumentation & Control	0	0	43,102	42,958	-144	n/a
94 - Technology Teams	210,096	138,662	326,609	318,652	-7,957	-2.4%
96 - Pandemic Costs	2,310	183	0	0	0	n/a
98 - Training	61,463	55,005	88,108	72,701	-15,407	-17.5%
99 - Administration	685,712	363,651	617,625	626,807	9,182	1.5%
<b>Grand Total</b>	<b>1,889,745</b>	<b>1,058,480</b>	<b>1,974,064</b>	<b>1,969,661</b>	<b>-4,403</b>	<b>-0.2%</b>
<b>Funds:</b>						
10 - General	\$834,149	\$506,400	\$903,710	\$904,376	\$666	0.1%
20 - Water General	835,752	445,064	795,834	754,263	-41,571	-5.2%
30 - Water Standish	18,071	3,806	274,520	311,022	36,502	13.3%
51 - WW Cape Elizabeth	39,142	10,596	0	0	0	n/a
53 - WW Cumberland	0	1,851	0	0	0	n/a
55 - WW Windham LF	25,237	9,683	0	0	0	n/a
57 - WW Portland	104,087	58,200	0	0	0	n/a
61 - WW Gorham	0	114	0	0	0	n/a
62 - WW Westbrook	2,417	1,093	0	0	0	n/a
64 - WW Joint Westbrook	27,247	19,516	0	0	0	n/a
66 - WW Peaks Island	3,642	1,977	0	0	0	n/a
67 - North Windham	0	178	0	0	0	n/a
<b>Grand Total</b>	<b>1,889,745</b>	<b>1,058,480</b>	<b>1,974,064</b>	<b>1,969,661</b>	<b>-4,403</b>	<b>-0.2%</b>
<b>Headcount:</b>						
Full-Time	18	18	18	18	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>18</b>	<b>0</b>	<b>0.0%</b>

## Engineering Services - SCADA Services (E7)

### Financial Summary

Column1	2020 Actual	Jan-Jun 2021	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$196,611	\$94,796	\$190,578	\$248,231	\$57,653	30.3%
Employee Benefits	86,483	47,591	95,194	116,378	21,184	22.3%
Contracted Services	30,319	12,588	31,111	31,111	0	0.0%
Materials & Supplies	11,857	6,357	21,825	23,625	1,800	8.2%
Other Expense	4,537	652	6,050	6,050	0	0.0%
Tele/Other Utilities	4,241	1,634	4,350	4,770	420	9.7%
Transportation	20,598	11,066	22,123	24,254	2,131	9.6%
<b>Grand Total</b>	<b>354,646</b>	<b>174,684</b>	<b>371,231</b>	<b>454,419</b>	<b>83,188</b>	<b>22.4%</b>
<b>Programs:</b>						
81 - Instrumentation & Control	\$188,298	\$106,164	\$226,406	\$258,918	\$32,512	14.4%
94 - Technology Teams	16,187	11,249	3,006	47,082	44,076	1466.3%
96 - Pandemic Costs	18,248	0	0	3,759	3,759	n/a
98 - Training	8,784	6,606	15,877	35,210	19,333	121.8%
99 - Administration	123,130	50,665	125,942	109,450	-16,492	n/a
<b>Grand Total</b>	<b>354,646</b>	<b>174,684</b>	<b>371,231</b>	<b>454,419</b>	<b>83,188</b>	<b>22.4%</b>
<b>Funds:</b>						
10 - General	\$166,259	\$68,520	\$144,825	\$191,742	\$46,917	32.4%
20 - Water General	38,562	31,283	86,440	92,471	6,031	7.0%
50 - Wastewater General	11,383	8,695	82,905	97,143	14,238	17.2%
51 - WW Cape Elizabeth	21,617	5,195	450	450	0	0.0%
53 - WW Cumberland	3,182	4,231	900	900	0	0.0%
57 - WW Portland	75,382	36,368	53,811	66,004	12,193	22.7%
61 - WW Gorham	2,957	2,348	450	450	0	0.0%
62 - WW Westbrook	2,933	2,311	450	450	0	0.0%
64 - WW Joint Westbrook	25,029	9,446	500	4,259	3,759	751.8%
65 - WW Joint LF	2,622	4,765	0	0	0	n/a
66 - WW Peaks Island	4,720	1,522	500	550	50	10.0%
<b>Grand Total</b>	<b>354,646</b>	<b>174,684</b>	<b>371,231</b>	<b>454,419</b>	<b>83,188</b>	<b>22.4%</b>
<b>Headcount:</b>						
Full-Time	3	3	3	4	1	33.3%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>33.3%</b>

## Administrative Services - Purpose Statement

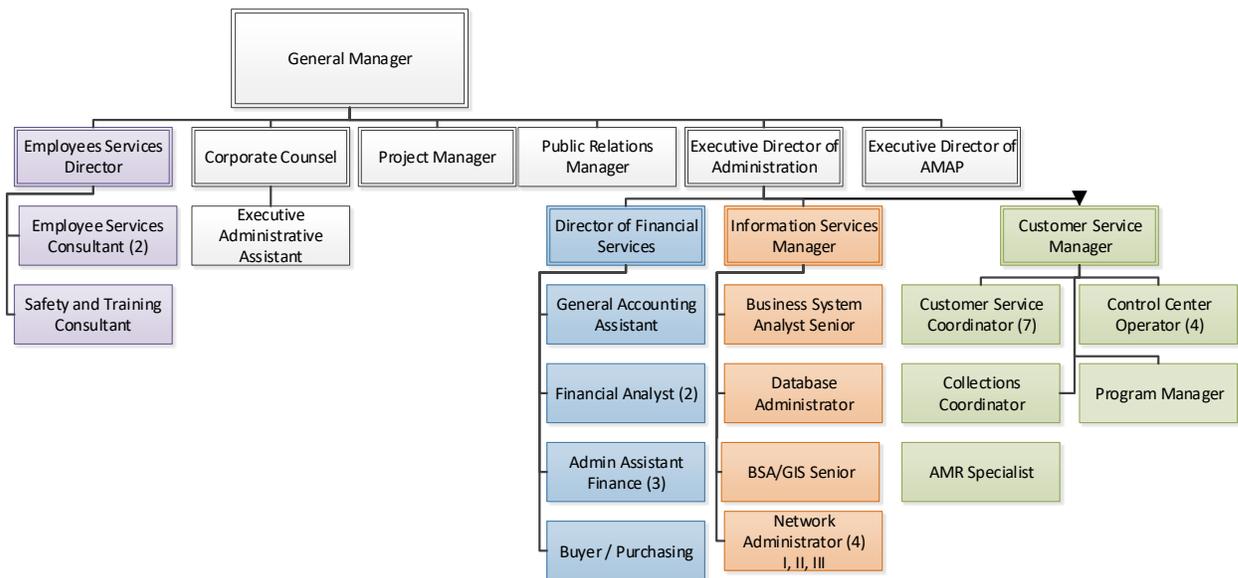
To provide support services to internal and external customers.

### Core Services

Administrative Services provides support services to internal and external customers by providing the following services:

- External customer call center response and billing services (Customer Service Group- F1; green in the organization chart).
- Computer system and related technology support and maintenance services (Information Services Group – G1; orange in the organization chart).
- Financial transaction processing and information services (Financial Services Group – H1; blue in the organization chart).
- Employee development, benefits and management services (Employee Services Group – I1; purple in the organization chart).

The District has an eight-person group (Executive Group – J1; white in the organization chart) that directs, oversees and provides administrative support for the District.



## **Past Accomplishments and 2022 Projects and Initiatives**

### **Customer Service**

#### **2021 Accomplishments:**

- **New Billing System:** Customer Service personnel have been involved with implementing and testing the system from the start. Time and effort in supporting the project has been significant.
- **Large meter review:** Continued collaboration and focus with Water Operations in reviewing and addressing any large meters with issues during monthly meetings. This has proven successful, as the number of outstanding large meter issues has significantly decreased since the start of this program.
- **Implemented outgoing collections calls:** When collections resumed in November of 2021, we implemented outgoing collection calls to our delinquent customers. These have been a success in earlier collection of overdue balances and limiting the need for location visits. We will continue the process going forward.

#### **2022 Projects and Initiatives:**

- **Service levels and rate changes:** Continue focus on meeting both objectives while supporting new billing system in 2022.
- **Contribute and support the efforts and progress of the new Asset Management system.**
- **Develop an appropriate plan to transition customers to the billing system/bill while educating them on new functions that will be available with the online Customer portal.**
- **Update documentation and procedures for the new billing system processes, including updating the Terms & Conditions as needed.**
- **Work with the Public Relations Manager to promote our low-income programs.**
- **Support the efforts and progress of the new billing system project.**
- **Review current collection processes to improve efficiencies with the new Cayenta billing system.**
- **Participate in New England Water Works' Customer Service Committee efforts to develop customer service related training.**

## Past Accomplishments and 2022 Projects and Initiatives (continued)

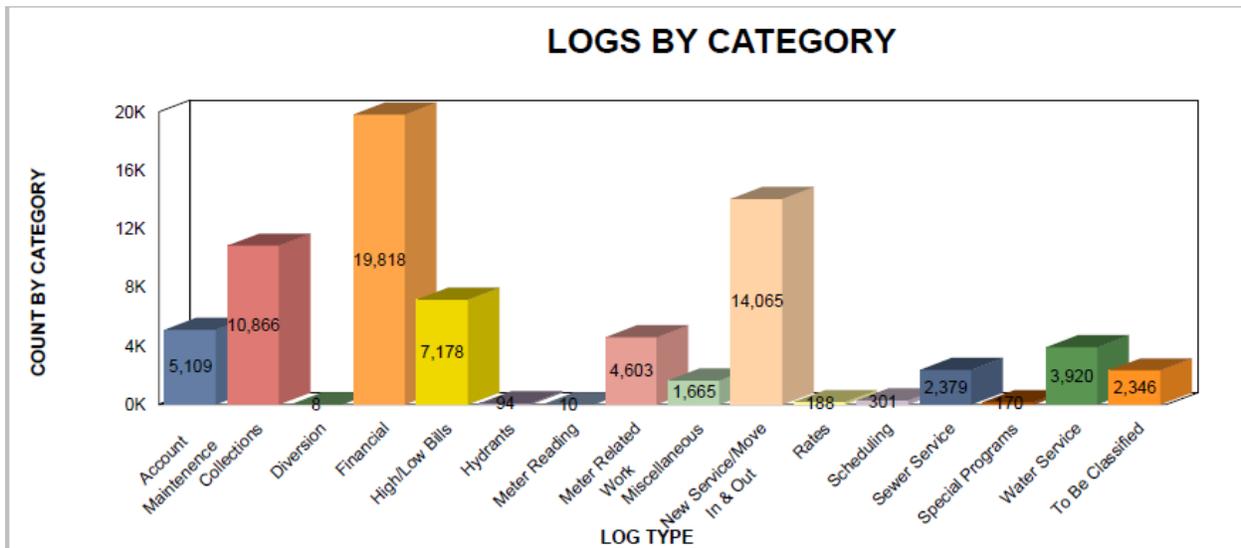
### Customer Service (continued)

#### CS Department Key Statistics:

<u>Key Statistic</u>	<u>2016</u> <u>Actual</u>	<u>2017</u> <u>Actual</u>	<u>2018</u> <u>Actual</u>	<u>2019</u> <u>Actual</u>	<u>2020</u> <u>Actual</u>	<u>2021</u> <u>Goal</u>
Customers	54,700	55,100	55,500	55,900	56,300	56,700
Phone Calls answered within 1 min	88%	86%	93%	90%	85%	82%
Customer Satisfaction	97%	98%	97%	98%	95%	95%
Actual vs Estimated reads	99.63%	99.67%	99.58%	100%	99%	99%
Accurate bill Index	99.96%	99.97%	99.96%	100%	99%	99%
Customer Contacts	54,753	48,971	56,565	59,383	60,000	63,000
Bills produced	647,429	652,974	659,174	660,000	664,000	668,000

#### Customer Service – Customer Contacts

Customer Service handles over 56,000 customer contacts a year via phone, email and in person. With the billing system implementation scheduled for October 2021, and collections resuming January 1, 2021 we anticipate higher contact levels.



## Past Accomplishments and 2022 Projects and Initiatives (continued)

### Information Services

#### 2021 Accomplishments

##### System upgrades:

- Continued expansion of Wi-Fi networks to support new Asset, Work Management system.
- Continued migration to virtual servers has resulted in increased network speed and reliability.
- Supported of CRM/Billing replacement project.
- Supported of Asset/Work Management replacement project.
- Conducted a Network Security Audit .
- Replaced several data servers as part of annual server refresh program.
- Migrated Security system from ExacqVision to Genetec
- Expanded MPLS to 3 more locations reducing the need for VPNs

##### Process Improvements:

- Developed additional digital workflows to replace paper-based processes.
- Implemented additional system monitoring.
  - PRTG
  - Sentinel One
- Upgraded Conference room. (rolled out Owl Conference AI)

##### System Security

- Conducted Security Awareness Training – End-user Cyber Security training conducted throughout the year to raise awareness related to the topic.
- Installed New security software to increase our security posture.
- Added Additional firewalls to increase security posture.
  - Redundant Firewall built in HA

#### 2022 Projects and Initiatives

##### System upgrades:

- Continued support of CRM/Billing replacement project.
- Continued support of Asset/Work Management replacement project.
- Continued expansion of Wi-Fi networks to support new Asset/Work Management system.
- Continued migration of physical servers to virtual servers.
- Replacement of several data servers as part of annual server refresh program.

## Past Accomplishments and 2022 Projects and Initiatives (continued)

### Information Services

#### 2022 Projects and Initiatives (continued)

##### System Security

- Security Awareness Training – Continue End-user Cyber Security training throughout the year to raise awareness related to the topic.
- Conduct Network Security Audit – Admin Network
- Continued build out of cold site - As a backup to our data center at Douglass Street, we will continue to build out our cold site at our Sebago Lake Water Treatment Facility.

##### Training

- PWD IS Department Overview sessions – We will be conducting several sessions for employees to understand what the Information Services does on a daily basis
- Continued Information Services inter-departmental training

#### IS Department Key Statistics:

##### Devices Maintained

Device Type	2019	2020	2021
Servers	20	28	28
Virtual Servers	75	95	124
Laptops	59	106	142
PC's	27	27	27
Thin Clients	145	145	145
Firewall	13	13	8
Switches	30	30	79
Routers	10	10	7
Phone Switches	12	12	12
Desk Phones	180	180	180
Smart Phones	21	22	22
Printers/Scanner	26	26	26
Copiers	9	9	9
iPads	21	21	38
<b>Total</b>	<b>648</b>	<b>724</b>	<b>847</b>

##### Major Applications

AutoCAD  
 Callrex Call Recording  
 Cayenta CRM  
 Citrix Presentation Server  
 eFinance Plus  
 ESRI GIS  
 Hach WIMS  
 Hansen Asset Management & Customer Billing  
 IBM Cognos Reports  
 Lucity CMMS  
 Microsoft Exchange  
 Microsoft Office 2016  
 Microsoft Power BI  
 Microsoft Remote Desktop Services  
 Microsoft Sharepoint 2016  
 Microsoft Windows Server  
 Mitel IP Phone System  
 Oracle Database (3)  
 SAP Crystal Reports  
 Scale Computing  
 SQL Databases (12)  
 VMware

## **Past Accomplishments and 2022 Projects and Initiatives (continued)**

### **Financial Services**

#### **2021 Accomplishments**

- Received Government Finance Officers Association’s “Certificate of Achievement for Excellence in Financial Reporting” for the 2019 Comprehensive Annual Financial Report (CAFR) and the “Distinguished Budget Presentation Award” for the 2021 Comprehensive Budget Report for the eleventh year in a row.
- Completed all daily work as well as the 2021 Budget and 2020 Year-End working in a mostly remote posture as necessitated by the COVID-19 emergency.
- Finance worked with both the Cayenta customer billing system group and the EAM asset group to prepare for the planned mid-October 2021 go live of these systems.
- Added the ability to process larger numbers of customer payments at Douglass Street in order to assist in the timely application of these payments.

#### **2022 Projects and Initiatives**

- Support the Asset (EAM) and Billing (Cayenta) projects so that we can continue to pull billing, payroll, transportation and inventory data into the financial system.
- Continue to work on a permanent solution to check processing whether that is processing the payments internally, outsourcing to a vendor or some combination of both.
- Continue to upgrade financial information provided to the Board of Trustees and management through more visual/graphical presentations of financial data.
- Review and update department procedures for the newly updated financial system and in concert with the Asset and Billing projects.
- Continue to receive the annual certificates of excellence for both the annual financial statements and the budget.
- Continue efforts on employee training with a particular focus on learning about other areas within the District.

## Past Accomplishments and 2022 Projects and Initiatives (continued)

### Employee Services

#### 2021 Accomplishments

##### **COVID-19 Pandemic:**

Pandemic responsibilities have remained at the forefront in 2021. The COVID-19 pandemic continued to challenge the District's operations and has required remote work, tracking of vaccinations, contact tracing, workstation disinfection, and mask procedures. Employee Services continues to track all employee absences, with exposure mapping and tracking based on CDC guidelines. As vaccines became available, we have diligently tracked this information and employee status. Most importantly, through absence management, we have been able to track and in many cases limit exposure at Portland Water District.

##### **Compensation:**

Career Management Associates was selected to provide a compensation survey for non-union positions. In preparation, we updated all non-union job descriptions, to provide the best possible matches to similar positions at other companies. The senior management team assisted in selecting and soliciting participation from peer companies. In March 2021, we completed the survey work with Career Management Associates, and transitioned the work for the non-union broad band compensation structure to KMA, a local Human Resources consulting firm. KMA will be providing recommendations for changes to the broad band system, reviewing positions within the structure, and recommending new minimum, midpoint, and maximum ranges for each band.

##### **Retirement Planning:**

Web-based group education has been offered to employees in 2021. We have added a loan feature to the 457 plan, an annuity option, called "Pension Builder" and enhanced the stable value fund by replacing it with one that allows a greater return on funds invested in it.

##### **Student Outreach Program:**

Due to the ongoing pandemic, plans for student outreach in 2021 continue to be on hold, but student outreach continues to be the focus with the NEWWA Waterworks Committee.

##### **Health Plan:**

Unfortunately, our health insurance claims experience was poor this year. We do expect a significant increase for 1/1/2022, which is yet to be determined. The amount that employees will contribute toward health insurance will be negotiated in the upcoming union negotiations for a three year contract with the bargaining unit. Employees currently pay 9% toward single health insurance coverage in 2021.

##### **Union:**

There were a few grievances filed, all were resolved and there are no pending arbitrations. Contract negotiations begin this fall with the bargaining unit. The Union stewards continue to meet virtually on a monthly basis with the General Manager and the Director of Employee Services. These meetings have proved to be an excellent way to keep the lines of communication open at this critical time.

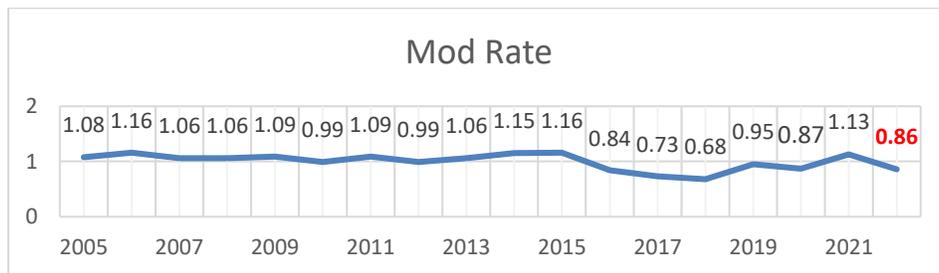
## Past Accomplishments and 2022 Projects and Initiatives (continued)

### Employee Services (continued)

#### 2021 Accomplishments (continued)

##### Worker’s Compensation:

Effective January 1, 2021, the District’s mod rate rose significantly, but throughout this year, our claims activity has been very low and the mod rate will drop back down again to 0.86. In summary: the District’s mod rate dropped to very low levels for five years in a row to the lowest level in over a decade in 2018. Effective January 1, 2016 it dropped to 0.84, saving approximately \$60,000 annually in premiums. Effective January 1, 2017 it dropped to 0.73, resulting in approximately another \$10,000 in annual premium reductions. Effective January 1, 2018, the mod rate again dropped to 0.68, saving approximately \$4,000 more in annual premiums. However, due to a few high cost workplace injuries, our mod rate increased to 0.95 effective January 1, 2019. This resulted in an increase of \$45,000 in annual premiums. The 2020 mod rate declined to 0.87 in 2020, but we had a serious injury that resulted in significant lost time. This claim has been in the process of mediation, but has affected our mod rate, which rose to 1.13 in 2021. We continue to vigilantly monitor workplace injuries, investigate all accidents, and examine the situations associated with these claims. The following is a recent history of the worker’s compensation experience mod rates for PWD:



##### Safety:

Eric Sawyer joined the District in July 2021 as the Safety Specialist. Eric has a strong history of promoting workplace safety and conducting related training. Eric looks forward to putting his expertise to service for the District.

In July, the Maine Municipal Association (MMA) conducted an inspection of the East End Wastewater Treatment Facility. The inspector reviewed policies and procedures related to the facility and was satisfied with the information provided. Further, the auditor was pleased to see the safety-related improvements at the facility (i.e.: lighter pump covers, and newly acquired fall protection around the grease pits). The EEWTF team appears to have a strong culture of safety. In the follow-up report, the inspector noted:

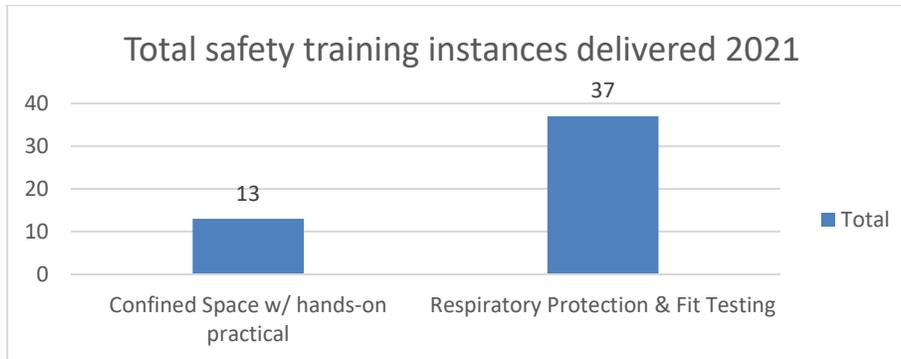
“We reviewed the districts safety policies and procedures, the district meets all three tiers of MMA’s Workers Comp Safety Incentives Program. We conducted a hazard survey of the East End Waste Water Treatment Plant. As a result of the survey, no hazards were identified.”

## Past Accomplishments and 2022 Projects and Initiatives (continued)

### Employee Services (continued)

#### 2021 Accomplishments (continued)

With the COVID-19 pandemic continuing to challenge operations, safety training was completed in a somewhat de-centralized fashion which resulted in decreased reporting and tracking of this training. The following chart reflects the group training that occurred through August of 2021.



Safety training is not only good practice and promotes a strong culture of safety, but many topics have a mandatory annual requirement as established by the Maine Bureau of Labor Standards. The following courses will be offered for the remainder of 2021:

- Safety Data Sheets (SDS)/Hazard Communication
- CPR/AED/First Aid
- VDT/Ergonomics
- Evacuation refresher & Fire Drills (x5 facilities)
- Fire Extinguisher Practical
- Fall Protection
- Excavation & Trenching
- Dig Safe
- Electrical/LOTO/NFPA 70E

## Past Accomplishments and 2022 Projects and Initiatives (continued)

### Employee Services (continued)

#### 2022 Projects and Initiatives

##### **Looking ahead to 2022:**

Hazard surveys/safety inspections provide the District with meaningful information to manage risk and prevent injuries. Surveys of this nature will be conducted twice annually at each facility/department. This process is continuous in nature in that a report is generated following each survey. The report is shared with the SMT member and assists in managing hazards and risks through corrective action planning. Some items may be able to be immediately fixed while others may include long-term planning or training development/refinement. Hazard surveys also allow the District to celebrate its successes.

OSHA & the Maine Bureau of Labor Standards publish a list of required annual training. The District will work diligently to ensure compliance with this requirement. The following training courses will be offered in 2022 through a variety of mediums (i.e. online/in-person training will be offered by District employees or external trainers). These monthly sessions will be supplemented with safety talks at the department level and with “tailgate talks/briefings” on worksites in the field. These initiatives support the District’s commitment to safety and continually reinforce safe work practices.

- Emergency Action Plan
- Defensive Driving
- Bloodborne Pathogens
- Respiratory Protection & PAPR Refresher
- VDT/Office Ergonomics
- Chains, Lifts, Hoists, & Slings with tracking & inspection plan
- Fall Protection/Walking & Working Surfaces
- Fire Extinguishers & Practical
- Chemical Hygiene & Ethics
- SDS & Hazard Communication
- Confined Space & Practical
- Fire Extinguishers & Practical
- NFPA 70E Arc Flash
- LOTO
- Fork Truck
- Ladders
- Evacuation Refresher & Drills
- Work Zone Safety/Flagging
- CPR/AED/First Aid

## Past Accomplishments and 2022 Projects and Initiatives (continued)

### Executive Group

#### 2021 Accomplishments

##### Corporate Counsel

- Monitored legislation at the state and the federal level, and prepared testimony for presentation to state legislators on bills of interest to PWD. Provided monthly reports to executive staff and the Board of Trustees on legislation and its effects on PWD.
- Worked on an appeal to the State Supreme Court related to a billing dispute. This is the first appeal to the Court on a PWD matter since 2006.
- Worked with staff on resolving IPT violations of a major industry in Portland and assisted staff in negotiating a consent agreement to resolve the violation.
- Worked on various real estate transactions related to development, and specifically assisted in resolving easement and other legal issues related to a development occurring at 5 India Street.
- Managed the liability claims process, which consists of reviewing every claim filed against PWD, reviewing the facts of each claim, sometimes in conjunction with the District's insurer, and determining whether the District is liable for the claim.

##### Public Relations

- Continued to support an increased effort to communicate internally as PWD continued to adapt to shifting safety recommendations in response to the global pandemic.
- Produced typical publications and communications efforts, and administered community relations programs: (Annual Water Quality Report, Comprehensive Financial Report, bill stuffers, water bottle filling station grants and scholarship programs, etc.)
- Planned, developed, and began executing awareness campaign to inform customers of the new Cayenta/EAM software system upgrade and redesigned bill format.

## Coming Soon!

- Enhanced online account & bill pay system
- More payment options
- Redesigned paper bill

**Stay tuned for further information**



## Coming Soon!

**Stay tuned for more details.**

Portland Water District  
FROM SERVICE TO CARE TO LIFE  
[www.pwd.org](http://www.pwd.org)



Redesigned  
paper bill  
with new  
account  
number



Enhanced  
online account  
and bill pay  
system



More  
payment  
options

## Past Accomplishments and 2022 Projects and Initiatives (continued)

### Executive Group (continued)

#### 2022 Projects and Initiatives

##### Corporate Counsel

Continue to respond to initiatives of the departments, communities served and developments in the Legislature and Congress including working with the Town of Windham on providing sewer service to the North Windham Area, reviewing the results of the 2020 Census to determine whether any change in apportionment of the Trustees need to be done and addressing the impact of federal and state regulation changes related to PFAS and Lead.

##### Public Relations

- Continue to oversee and safeguard PWD’s brand image through a strategic communication plan and comprehensive media relations program, integrated online presence, and active community relations program.
- Conduct a customer satisfaction survey as a means to continue to measure and understand consumer perceptions, concerns, and trends.
- Create a Board Governance video highlighting what it means to be a Portland Water District trustee.

**Customer Outreach** – Bill stuffers are regularly included in the monthly bill. Each year the District sends an Annual Water Quality Report to all customers.

**Do your part to keep polluted stormwater out of our rivers, lakes, and Casco Bay!**

Stormwater runoff is a major problem in Maine. As rainwater runs across pavement and rooftops, it picks up pollutants and carries them to our waterways. Rain barrels capture and collect stormwater before it becomes polluted so the water can be used for lawns, gardens, and indoor plants. They also help you conserve water, too.

**Order your rain barrel TODAY!**

We are pleased to provide rain barrels at a discounted price of \$68.58 (includes tax & handling). This is over 50% off the retail price!

**Features:**

- Repurposed 55-gallon, food-grade barrels (they have no odor and are completely reusable)
- Barrel color is reddish brown
- Screening at the top keeps mosquitoes, insects, and debris out
- Removable lid for easy cleaning
- Solid brass threaded spigot for connecting to a hose
- Overflow hose directs water away from the foundation
- Multiple barrels can be joined for additional storage capacity

SCAN HERE for more information and to place your order today!

Portland Water District

## ANNUAL WATER QUALITY REPORT

**IN THIS REPORT**

- The Water Source
- Ensuring Water Quality: Water Purification and Disinfection
- Water Quality Analysis
- Health Notices
- Sheep Falls Supplemental Information

We have been navigating the pandemic and the many challenges that COVID-19 presented for over a year now. Our top priority has always been, and remains, the safety of our employees and partners so we can continue to serve customers with essential services. I'm proud to say our dedicated staff has gone to great lengths to ensure the reliability and quality of the public water supply were safeguarded throughout this unprecedented event.

We have adapted and made many changes over the past year in how we do business, engage with customers, and deliver services. Some are improvements that we will continue; others will return to pre-pandemic status when it is safe to do so. Rest assured, our commitment to delivering high-quality drinking water, 24/7, will not waver.

I am pleased to share with you the 2021 Annual Water Quality Report, which once again shows water quality surpasses all federal and state standards.

Stay safe and healthy,  
 Carrie Lewis  
 General Manager

Over the past year, essential services like hydrant inspection and maintenance of critical infrastructure continued, despite the pandemic. Front line employees, like Joe, took extra precautions to ensure essential services were not interrupted. The Portland Water District inspects and maintains 5,123 public hydrants.

*"Every situation is different, so communication was key to keeping customers informed and for our safety. The safety precautions take longer but keeping myself safe keeps my coworkers safe, my family safe, and it keeps me working."*

Joe, Utility Specialist

Portland Water District

Published May 2021  
 1/1/20 – 12/31/20  
 PWSID: ME 0091300 and ME 0091302

## Financial Overview

The Administrative Services budget request is \$6,331,553, which is \$37,127 or 0.6% lower than last year. The number of employees in the area is 44, no change from the prior year.

### Customer Service (F1) Group (\$1,690,346 request; \$112,869 or 6.3% lower)

- Salaries/Wages and Benefits: Decreased by \$2,882, or 0.2%. No changes in the number of employees. The impact of the assumed 2% wage increase was offset by lower pension costs.
- Contracted Services: Decreased by \$50,428, or 17.1% due to lower Digsafe, utility bill printing and computer maintenance costs.
- Other Expenses: Decreased by \$61,380 or 23.1%. Prior year included extra postage due to the new billing system implementation that will not reoccur in 2022.

### Information Service (G1) Group (\$1,228,033 request; \$26,699 or 2.2% higher)

- Salaries/Wages and Benefits: Increased by \$1,549, or 0.2%. No changes in the number of employees. The impact of the assumed 2% wage increase was offset by lower pension costs.
- All Other Expenses: Increased by \$25,150, or 8.9%. Increase due to higher third-party computer maintenance and consulting expenditures.

### Financial Services (H1) Group (\$964,400 request; \$15,311 or 1.6% higher)

- Salaries/Wages and Benefits: decreased by \$1,414, or 0.2%. No changes in the number of employees. The impact of the assumed 2% wage increase was offset by lower pension costs.
- Contracted Services: increased by \$19,825 or 8.2%, reflects an anticipated higher volume of online payment activity.

### Employee Service (I1) Group (\$596,933 request; \$2,888 or 0.5% higher)

- Salaries/Wages and Benefits: Decreased by \$10,272, or 2.1%. No changes in the number of employees. The impact of the assumed 2% wage increase was offset by lower pension costs
- All Other Expenses: Increased by \$13,160, or 11.6%. Additional legal and third-party consultant work is anticipated.

### Executive (J1) Group (\$1,851,841 request; \$30,844 or 1.7% higher)

- Salaries/Wages and Benefits: Decreased by \$11,592, or 4.4%. No staffing changes planned. Assumed 2% wage increase was offset by lower pension costs.
- All Other Expenses: Increased by \$42,436 or 10.1%. Increase due to higher data/cell costs and a higher GM contingency allocation.

## Administrative Services - Total

### Financial Summary:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Sub-Group:</b>						
F1 - Customer Service	\$1,451,338	\$749,180	\$1,803,215	\$1,690,346	(112,869)	-6.3%
G1 - Information Services	1,148,449	619,372	1,201,334	1,228,033	26,699	2.2%
H1 - Financial Services	934,350	508,490	949,089	964,400	15,311	1.6%
I1 - Employee Services	541,524	263,371	594,045	596,933	2,888	0.5%
J1 - BOT & Senior Management	1,537,775	775,800	1,820,997	1,851,841	30,844	1.7%
<b>Grand Total</b>	<b>5,613,436</b>	<b>2,916,213</b>	<b>6,368,680</b>	<b>6,331,553</b>	<b>(37,127)</b>	<b>-0.6%</b>
<b>Expense Type:</b>						
Salaries & Wages	\$2,977,880	\$1,498,409	\$3,129,647	\$3,191,227	61,580	2.0%
Employee Benefits	1,353,159	752,853	1,573,738	1,487,547	(86,191)	-5.5%
Contracted Services	718,779	406,680	951,842	948,064	(3,778)	-0.4%
Insurance	129,514	44,284	95,231	102,926	7,695	8.1%
Materials & Supplies	90,580	38,701	58,190	59,793	1,603	2.8%
Other Expense	305,176	151,194	524,636	494,756	(29,880)	-5.7%
Tele/Other Utilities	23,885	16,271	15,140	26,070	10,930	72.2%
Transportation	14,462	7,824	20,256	21,170	914	4.5%
<b>Grand Total</b>	<b>5,613,436</b>	<b>2,916,213</b>	<b>6,368,680</b>	<b>6,331,553</b>	<b>(37,127)</b>	<b>-0.6%</b>
<b>Headcount:</b>						
Full Time	44	44	44	44	0	0.0%
Part Time	0	0	0	0	0	0.0%
<b>Total</b>	<b>44</b>	<b>44</b>	<b>44</b>	<b>44</b>	<b>0</b>	<b>0.0%</b>

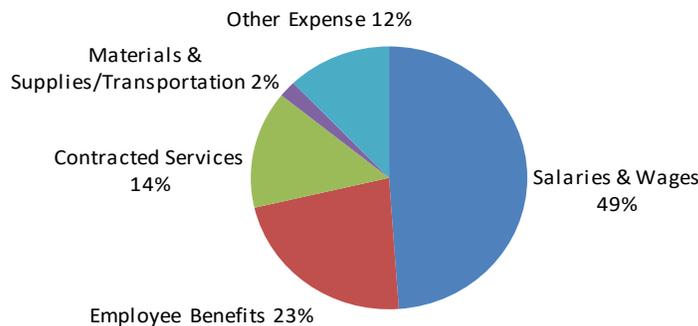
	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Salaries &amp; Wages</b>						
660111 - SALARIES/WAGES NON-UNION	\$2,127,973	\$1,108,707	\$2,318,163	\$2,360,836	\$42,673	1.8%
660112 - WAGES/OVERTIME NON-UNION	211	-	-	190	190	n/a
660121 - WAGES/REGULAR UNION	728,816	371,946	755,144	771,491	16,347	2.2%
660122 - WAGES/OVERTIME UNION	6,558	4,881	22,620	24,270	1,650	7.3%
660131 - WAGES - REGULAR - TEMPS	-	-	6,720	7,440	720	10.7%
660136 - CONTRACTED - TEMP	4,450	-	-	-	-	n/a
66014 - VACATION ACCRUAL	69,374	-	-	-	-	n/a
660141 - TRUSTEES COMPENSATION	26,200	12,875	27,000	27,000	-	0.0%
66015 - SICKTIME ACCRUAL	14,298	-	-	-	-	n/a
<b>Salaries &amp; Wages Total</b>	<b>2,977,880</b>	<b>1,498,409</b>	<b>3,129,647</b>	<b>3,191,227</b>	<b>61,580</b>	<b>2.0%</b>
<b>Employee Benefits</b>						
660401 - FICA - EMPLOYERS' SHARE	218,422	114,364	239,417	244,129	4,712	2.0%
660405 - SAFETY/WHY PROGRAM ITEMS	4,929	1,085	6,310	6,360	50	0.8%
660411 - MEALS ALLOWANCE	-	-	100	100	-	0.0%
660413 - PWD TRAINING PROGRAM	20	-	-	-	-	n/a
660418 - STIPENDS	400	400	200	200	-	0.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	9,670	5,476	8,380	9,200	820	9.8%
660491 - FRINGE BENEFITS-REG/SAL	1,119,718	631,527	1,319,331	1,227,558	(91,773)	-7.0%
<b>Employee Benefits Total</b>	<b>1,353,159</b>	<b>752,853</b>	<b>1,573,738</b>	<b>1,487,547</b>	<b>(86,191)</b>	<b>-5.5%</b>
<b>Contracted Services</b>						
662063 - COPIER MAINTENANCE/TONER	14,591	6,043	15,000	15,000	-	0.0%
6632 - ACCOUNTING SERVICES	37,500	34,500	38,500	39,000	500	1.3%
66331 - LEGAL - LABOR RELATIONS	25,916	9,244	65,000	68,000	3,000	4.6%
66333 - BOND COUNSEL	7,514	-	7,500	7,600	100	1.3%
66339 - LEGAL - OTHER	6,257	28,399	20,000	20,000	-	0.0%
663545 - RADIO SERVICING AND EQUIP	1,347	340	3,000	3,000	-	0.0%
663561 - COMPUTER LICENSES	190	3,463	2,000	2,000	-	0.0%
663562 - COMPUTER MAINTENANCE	274,573	159,995	373,377	373,044	(333)	-0.1%
663563 - COMPUTER CONSULTING/OTHER	15,770	8,325	23,000	30,000	7,000	30.4%
6635801 - EMPLOYEE HEALTH SERVICES	6,029	4,449	10,000	10,000	-	0.0%
663581 - UTILITY BILLING PRINTING	65,030	28,313	88,370	72,000	(16,370)	-18.5%
663582 - PAYMENT PROCESSING	162,375	74,321	152,300	167,800	15,500	10.2%
663583 - RECEIVABLE COLLECTIONS	5,472	3,407	10,000	10,000	-	0.0%
663584 - BANK SERVICE CHARGES	15,305	9,908	25,200	21,600	(3,600)	-14.3%
663587 - COURIER SERVICES	4,630	2,257	4,600	4,700	100	2.2%
663588 - EQUIPMENT MAINTENANCE	-	-	1,500	1,500	-	0.0%
663592 - RECRUITING SERVICES	2,268	2,303	6,000	6,000	-	0.0%
663594 - DIGSAFE	34,712	23,184	63,000	45,000	(18,000)	-28.6%
663595 - OUTPLACEMENT SERVICES	-	-	500	500	-	0.0%
663598 - HR CONSULTANT SERVICES	22,144	1,480	8,000	15,000	7,000	87.5%
6635984 - LANGUAGE INTERPRETATION	-	-	355	355	-	0.0%
663599 - MISC OTHER SERVICES	17,157	6,748	34,640	35,965	1,325	3.8%
<b>Contracted Services Total</b>	<b>718,779</b>	<b>406,680</b>	<b>951,842</b>	<b>948,064</b>	<b>(3,778)</b>	<b>-0.4%</b>
<b>Insurance</b>						
6657 - GEN LIABILITY INSURANCE	52,405	28,224	56,163	62,092	5,929	10.6%
66592 - DAMAGES & CLAIMS-GOODWILL	46,192	-	5,500	5,500	-	0.0%
66593 - UMBRELLA INSURANCE COVER	3,531	1,916	3,774	4,216	442	11.7%
66594 - PROFESSION/CRIME BONDING	27,386	14,144	29,794	31,118	1,324	4.4%
<b>Insurance Total</b>	<b>129,514</b>	<b>44,284</b>	<b>95,231</b>	<b>102,926</b>	<b>7,695</b>	<b>8.1%</b>

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Materials &amp; Supplies</b>						
6619 - ASSET PURCHASES	\$30,993	\$19,632	\$5,500	\$6,350	\$850	15.5%
66202 - TOOLS	250	154	300	300	-	0.0%
66203 - VENDOR PURCHASED SUPPLIES	13,357	626	3,400	3,400	-	0.0%
662041 - MATERIALS INVENTORY	24	-	-	-	-	n/a
662042 - SUPPLIES INVENTORY	2,838	538	2,650	3,100	450	17.0%
662043 - TOOL INVENTORY	2,175	1,512	1,200	1,300	100	8.3%
66204301 - INVENTORY - TONER	1,903	1,247	1,000	1,000	-	0.0%
66204302 - INVENTORY - PAPER	2,109	1,066	4,000	4,000	-	0.0%
66204303 - INVENTORY - COMPUTER EQUIP	6,558	1,448	10,825	11,178	353	3.3%
662047 - GARAGE INVENTORY	35	5	-	-	-	n/a
66205 - CONSUMABLE SUPPLIES	605	708	2,750	2,600	(150)	-5.5%
66206 - COMPUTER RELATED EQUIP	29,733	11,764	26,565	26,565	-	0.0%
<b>Materials &amp; Supplies Total</b>	<b>90,580</b>	<b>38,701</b>	<b>58,190</b>	<b>59,793</b>	<b>1,603</b>	<b>2.8%</b>
<b>Other Expense</b>						
6642 - EQUIPMENT RENT	-	1,634	2,900	-	(2,900)	-100.0%
66601 - PUBLIC RELATIONS	1,176	949	3,250	3,250	-	0.0%
66609 - OTHER ADVERTISING	5,744	1,350	5,350	5,600	250	4.7%
6675111 - INSTATE TRAINING/CONF	7,708	4,558	19,000	20,500	1,500	7.9%
6675112 - OUT OF STATE TRAINING/CON	361	400	23,500	27,000	3,500	14.9%
667513 - DUES	27,686	18,426	54,665	55,165	500	0.9%
667514 - PROFESSIONAL LICENSES	265	539	900	900	-	0.0%
667515 - PERIODICAL SUBSCRIPTIONS	3,804	2,278	6,375	5,625	(750)	-11.8%
667521 - POSTAGE - THIRD PARTY	192,937	97,946	261,480	201,100	(60,380)	-23.1%
667522 - POSTAGE - INTERNAL	9,674	6,629	15,641	15,366	(275)	-1.8%
667523 - POSTAGE - EXPRESS DELIVER	-	-	400	400	-	0.0%
667531 - PRINTING COSTS	19,663	9,345	27,600	28,100	500	1.8%
667532 - PHOTOCOPYING COSTS	-	(65)	-	-	-	n/a
667533 - FORMS STOCK	789	789	925	800	(125)	-13.5%
667552 - SAFETY TRAINING	-	-	3,000	3,000	-	0.0%
667553 - DOT SUBSTANCE ABUSE	2,597	1,067	2,000	3,000	1,000	50.0%
667555 - SAFETY EXPENSES	4,492	3,652	5,000	5,000	-	0.0%
667592 - FOOD SUPPLIES	1,189	236	3,900	3,700	(200)	-5.1%
667593 - VENDOR INTEREST CHARGES	-	(4,066)	(4,500)	(4,500)	-	0.0%
667598 - GEN MANAGER CONTINGENCY	-	-	44,500	69,500	25,000	56.2%
6675981 - GEN MNG - TRUSTEES	11,133	600	14,350	16,850	2,500	17.4%
6675982 - GEN MNG - COMMUNITY	11,027	2,824	32,900	32,900	-	0.0%
667599 - OTHER MISCELLANEOUS	4,933	2,102	1,500	1,500	-	0.0%
<b>Other Expense Total</b>	<b>305,176</b>	<b>151,194</b>	<b>524,636</b>	<b>494,756</b>	<b>(29,880)</b>	<b>-5.7%</b>
<b>Tele/Other Utilities</b>						
66112 - DATA LINES	12,301	11,028	6,696	16,970	10,274	153.4%
66113 - CELLULAR PHONES	11,584	5,243	8,444	9,100	656	7.8%
<b>Tele/Other Utilities Total</b>	<b>23,885</b>	<b>16,271</b>	<b>15,140</b>	<b>26,070</b>	<b>10,930</b>	<b>72.2%</b>
<b>Transportation</b>						
66501 - TRANSPORTATION - INTERNAL	8,470	4,879	9,424	10,297	873	9.3%
665019 - TRANS INTERNAL INACTIVE	4,526	2,298	5,497	6,008	511	9.3%
66502 - TRANSPORTATION - EXTERNAL	387	369	850	850	-	0.0%
66503 - MILEAGE REIMBURSEMENT	1,042	278	4,385	3,965	(420)	-9.6%
66504 - MTA TRANS-PASS TOLL FEES	37	-	100	50	(50)	-50.0%
<b>Transportation Total</b>	<b>14,462</b>	<b>7,824</b>	<b>20,256</b>	<b>21,170</b>	<b>914</b>	<b>4.5%</b>
<b>Grand Total</b>	<b>5,613,436</b>	<b>2,916,213</b>	<b>6,368,680</b>	<b>6,331,553</b>	<b>(37,127)</b>	<b>-0.6%</b>

## Administrative Services: Customer Services (F1)

### Financial Summary:

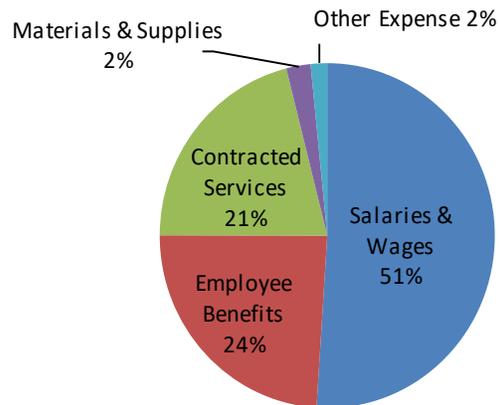
Expense Type:	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Salaries & Wages	\$782,650	\$388,094	\$807,893	\$826,041	\$ 18,148	2.2%
Employee Benefits	356,424	193,556	400,953	379,923	(21,030)	-5.2%
Contracted Services	118,839	54,938	294,911	244,483	(50,428)	-17.1%
Materials & Supplies	2,651	663	16,640	16,693	53	0.3%
Other Expense	172,578	101,549	265,421	204,041	(61,380)	-23.1%
Tele/Other Utilities	4,878	2,807	1,476	1,860	384	26.0%
Transportation	13,317	7,573	15,921	17,305	1,384	8.7%
<b>Grand Total</b>	<b>1,451,338</b>	<b>749,180</b>	<b>1,803,215</b>	<b>1,690,346</b>	<b>(112,869)</b>	<b>-6.3%</b>
<b>Programs:</b>						
17 - Hydrant Maintenance	\$24,807	\$2,336	\$0	\$0	\$0	n/a
74 - Control Center	197,888	113,878	220,075	201,694	(18,381)	-8.4%
76 - Collection	15,937	20,563	60,174	60,381	207	0.3%
77 - Billing	240,319	129,704	462,626	369,303	(93,323)	-20.2%
80 - Meter Reading	73,119	35,302	77,119	77,426	307	0.4%
96 - Pandemic Costs	6,327	0	0	0	0	n/a
98 - Training	41,910	4,928	171,904	171,563	(341)	-0.2%
99 - Administration	851,032	442,467	811,317	809,979	(1,338)	-0.2%
<b>Grand Total</b>	<b>1,451,338</b>	<b>749,180</b>	<b>1,803,215</b>	<b>1,690,346</b>	<b>(112,869)</b>	<b>-6.3%</b>
<b>Funds:</b>						
10 - General	\$1,408,393	\$726,063	\$1,743,041	\$1,629,965	\$ (113,076)	-6.5%
20 - Water General	38,687	1,881	19,728	19,765	37	0.2%
30 - Water Standish	106	664	2,039	2,048	9	0.4%
51 - WW Cape Elizabeth	315	608	2,637	2,648	11	0.4%
53 - WW Cumberland	151	550	1,099	1,103	4	0.4%
54 - WW Falmouth	175	654	1,549	1,557	8	0.5%
57 - WW Portland	1,741	7,810	16,275	16,344	69	0.4%
59 - WW South Portland	1,069	5,218	7,409	7,440	31	0.4%
61 - WW Gorham	195	1,846	2,838	2,848	10	0.4%
62 - WW Westbrook	506	3,886	6,600	6,628	28	0.4%
<b>Grand Total</b>	<b>1,451,338</b>	<b>749,180</b>	<b>1,803,215</b>	<b>1,690,346</b>	<b>(112,869)</b>	<b>-6.3%</b>
<b>Headcount:</b>						
Full-Time	14	14	14	14	0	0.0%
Part-Time	0	0	0	0	0	0.0%
<b>Total</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>14</b>	<b>0</b>	<b>0.0%</b>



## Administrative Services: Information Services (G1)

### Financial Summary:

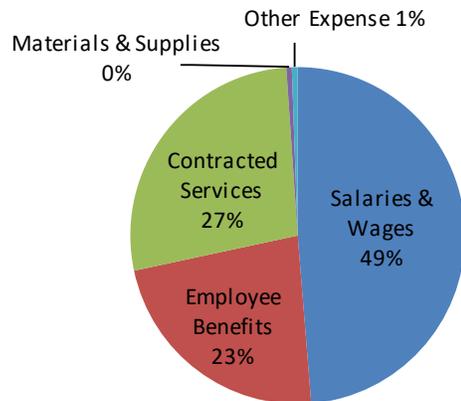
	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$566,343	\$296,775	\$610,231	\$626,551	16,320	2.7%
Employee Benefits	262,504	150,154	309,587	294,816	(14,771)	-4.8%
Contracted Services	248,813	131,679	239,341	258,341	19,000	7.9%
Materials & Supplies	59,031	31,332	28,800	28,800	0	0.0%
Other Expense	2,672	1,201	8,725	10,525	1,800	20.6%
Tele/Other Utilities	8,481	8,108	3,150	8,000	4,850	154.0%
Transportation	605	123	1,500	1,000	(500)	-33.3%
<b>Grand Total</b>	<b>1,148,449</b>	<b>619,372</b>	<b>1,201,334</b>	<b>1,228,033</b>	<b>26,699</b>	<b>2.2%</b>
<b>Programs:</b>						
96 - Pandemic Costs	\$46,520	\$0	\$0	\$0	0	n/a
98 - Training	25,485	21,708	42,343	44,385	2,042	4.8%
99 - Administration	1,076,444	597,664	1,158,991	1,183,648	24,657	2.1%
<b>Grand Total</b>	<b>1,148,449</b>	<b>619,372</b>	<b>1,201,334</b>	<b>1,228,033</b>	<b>26,699</b>	<b>2.2%</b>
<b>Funds:</b>						
10 - General	\$1,148,449	\$619,372	\$1,201,334	\$1,228,033	26,699	2.2%
<b>Grand Total</b>	<b>1,148,449</b>	<b>619,372</b>	<b>1,201,334</b>	<b>1,228,033</b>	<b>26,699</b>	<b>2.2%</b>
<b>Headcount:</b>						
Full-Time	7	7	7	7	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>0</b>	<b>0.0%</b>



## Administrative Services: Financial Services (H1)

### Financial Summary:

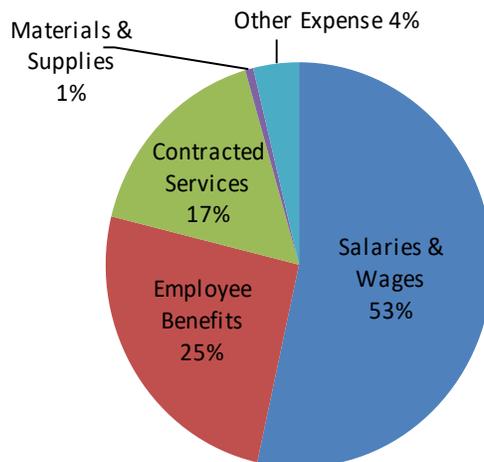
	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$460,209	\$231,909	\$459,172	\$469,757	10,585	2.3%
Employee Benefits	212,954	116,691	233,197	221,198	(11,999)	-5.1%
Contracted Services	249,072	157,289	243,140	262,965	19,825	8.2%
Materials & Supplies	5,831	1,574	4,750	5,050	300	6.3%
Other Expense	6,220	980	8,545	5,145	(3,400)	-39.8%
Transportation	63	47	285	285	0	0.0%
<b>Grand Total</b>	<b>934,350</b>	<b>508,490</b>	<b>949,089</b>	<b>964,400</b>	<b>15,311</b>	<b>1.6%</b>
<b>Programs:</b>						
29 - Watershed Grants	\$0	\$0	\$0	\$4,696	4,696	n/a
77 - Billing	179,973	90,402	180,350	206,730	26,380	14.6%
96 - Pandemic Costs	1,968	0	0	0	0	n/a
98 - Training	4,342	1,374	29,043	29,679	636	2.2%
99 - Administration	748,066	416,715	739,696	723,295	(16,401)	-2.2%
<b>Grand Total</b>	<b>934,350</b>	<b>508,490</b>	<b>949,089</b>	<b>964,400</b>	<b>15,311</b>	<b>1.6%</b>
<b>Funds:</b>						
10 - General	\$853,221	\$465,814	\$864,456	\$875,364	10,908	1.3%
20 - Water General	\$81,074	\$42,676	\$84,633	\$89,036	4,403	5.2%
57 - WW Portland	\$55	\$0	\$0	\$0	0	n/a
<b>Grand Total</b>	<b>\$934,350</b>	<b>\$508,490</b>	<b>\$949,089</b>	<b>\$964,400</b>	<b>15,311</b>	<b>1.6%</b>
<b>Headcount:</b>						
Full-Time	8	8	8	8	0	0.0%
Part-Time	0	0	0	0	0	0
<b>Total</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>8</b>	<b>0</b>	<b>0.0%</b>



## Administrative Services: Employee Services (I1)

### Financial Summary:

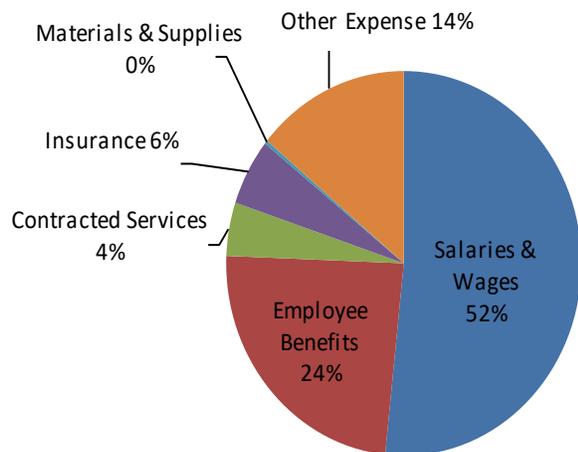
	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$317,215	\$156,411	\$318,136	\$319,036	900	0.3%
Employee Benefits	144,275	79,094	162,809	151,637	(11,172)	-6.9%
Contracted Services	56,442	17,544	89,500	99,500	10,000	11.2%
Materials & Supplies	7,001	417	3,500	4,000	500	14.3%
Other Expense	14,264	8,683	17,500	20,000	2,500	14.3%
Tele/Other Utilities	2,212	1,151	2,000	2,410	410	20.5%
Transportation	115	71	600	350	(250)	-41.7%
<b>Grand Total</b>	<b>541,524</b>	<b>263,371</b>	<b>594,045</b>	<b>596,933</b>	<b>2,888</b>	<b>0.5%</b>
<b>Programs:</b>						
88 - Safety	\$300	\$0	\$0	\$0	0	n/a
96 - Pandemic Costs	1,035	53	0	0	0	n/a
98 - Training	17,445	7,517	20,825	21,969	1,144	5.5%
99 - Administration	522,744	255,802	573,220	574,964	1,744	0.3%
<b>Grand Total</b>	<b>541,524</b>	<b>263,371</b>	<b>594,045</b>	<b>596,933</b>	<b>2,888</b>	<b>0.5%</b>
<b>Funds:</b>						
10 - General	\$541,524	\$263,371	\$594,045	\$596,933	2,888	0.5%
<b>Grand Total</b>	<b>541,524</b>	<b>263,371</b>	<b>594,045</b>	<b>596,933</b>	<b>2,888</b>	<b>0.5%</b>
<b>Headcount:</b>						
Full-Time	4	4	4	4	0	0.0%
Part-Time	0	0	0	0	0	n/a
<b>Total</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>4</b>	<b>0</b>	<b>0.0%</b>



## Administrative Services: Executive (I1)

### Financial Summary:

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Expense Type:</b>						
Salaries & Wages	\$851,463	\$425,219	\$934,215	\$949,842	15,627	1.7%
Employee Benefits	377,002	213,358	467,192	439,973	(27,219)	-5.8%
Contracted Services	45,613	45,229	84,950	82,775	(2,175)	-2.6%
Insurance	129,514	44,284	95,231	102,926	7,695	8.1%
Materials & Supplies	16,067	4,715	4,500	5,250	750	16.7%
Other Expense	109,443	38,781	224,445	255,045	30,600	13.6%
Tele/Other Utilities	8,313	4,205	8,514	13,800	5,286	62.1%
Transportation	361	9	1,950	2,230	280	14.4%
<b>Grand Total</b>	<b>1,537,775</b>	<b>775,800</b>	<b>1,820,997</b>	<b>1,851,841</b>	<b>30,844</b>	<b>1.7%</b>
<b>Programs:</b>						
29 - Watershed Grants	\$0	\$0	\$0	\$3,979	3,979	n/a
5 - Public Relations	149,940	70,814	183,644	183,857	213	0.1%
96 - Pandemic Costs	13,520	0	0	0	0	n/a
98 - Training	30,904	22,673	78,593	75,472	(3,121)	-4.0%
99 - Administration	1,343,411	682,314	1,558,760	1,588,533	29,773	1.9%
<b>Grand Total</b>	<b>1,537,775</b>	<b>775,800</b>	<b>1,820,997</b>	<b>1,851,841</b>	<b>30,844</b>	<b>1.7%</b>
<b>Funds:</b>						
10 - General	\$1,438,385	\$757,404	\$1,766,697	\$1,792,062	25,365	1.4%
20 - Water General	98,689	18,099	54,300	59,779	5,479	10.1%
50 - Wastewater General	594	297	0	0	0	n/a
55 - WW Windham LF	106	0	0	0	0	n/a
<b>Grand Total</b>	<b>1,537,775</b>	<b>775,800</b>	<b>1,820,997</b>	<b>1,851,841</b>	<b>30,844</b>	<b>1.7%</b>
<b>Headcount:</b>						
Full-Time	10	10	10	10	0	0.0%
Part-Time	0	0	0	0	0	0
<b>Total</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>10</b>	<b>0</b>	<b>0.0%</b>



## Non-Departmental

Non-Departmental expenses are expenses that are not specifically assigned to a department. Other expenses include Public Utilities Commission's assessment, real estate taxes assessed by the Town of Standish and Bad Debt write-off. The budget for Bad Debt Expense (6670) was reduced to zero as the reserve balance is adequate for anticipated losses.

	2020 Actual	2021 Jan-Jun	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Contracted Services</b>						
663525 - CONTRACTOR CONSTRUCTION	\$ 226,512	\$ -	\$ -	\$ -	\$ -	n/a
663599 - MISC OTHER SERVICES	13,476	0	0	0	0	n/a
<b>Contracted Services Total</b>	<b>239,988</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>n/a</b>
<b>Deferred Cost W/O</b>						
66754 - DEFERRED COSTS WRITE OFF	\$ 301,545	\$ -	\$ -	\$ -	\$ -	n/a
<b>Deferred Cost W/O Total</b>	<b>301,545</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>n/a</b>
<b>Other Expense</b>						
6670 - BAD DEBT EXPENSE	\$ 220,372	\$ 25,000	\$ 50,000	\$ -	\$ (50,000)	-100.0%
6706 - AMORT OF U P ACQ ADJUSTS	17,000	8,500	17,000	17,000	0	0.0%
<b>Other Expense Total</b>	<b>237,372</b>	<b>33,500</b>	<b>67,000</b>	<b>17,000</b>	<b>(50,000)</b>	<b>-74.6%</b>
<b>Purchased Power</b>						
661510 - RENEW ENERGY EXPENSE	\$ 1,088	\$ 11,792	\$ -	\$ -	\$ -	n/a
661511 - RENEW ENERGY FEES	81	0	0	0	0	n/a
<b>Purchased Power Total</b>	<b>1,169</b>	<b>11,792</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>n/a</b>
<b>Regulatory/Taxes</b>						
670821 - STANDISH REAL ESTATE TAX	\$ 52,234	\$ 26,159	\$ 55,930	\$ 54,700	\$ (1,230)	-2.2%
670822 - OTHER R/E TAX(NON-STANDI)	8,572	5,450	9,060	9,230	170	1.9%
670823 - PUC ASSESSMENT	112,996	119,146	95,000	120,000	25,000	26.3%
670824 - ME DRINKING WTR PROGRAM	82,438	0	80,275	82,475	2,200	2.7%
670825 - PUC PUBLIC ADVOCATE	3,972	0	15,000	15,000	0	0.0%
<b>Regulatory/Taxes Total</b>	<b>260,212</b>	<b>150,754</b>	<b>255,265</b>	<b>281,405</b>	<b>26,140</b>	<b>10.2%</b>
<b>Grand Total</b>	<b>1,040,286</b>	<b>196,046</b>	<b>322,265</b>	<b>298,405</b>	<b>(23,860)</b>	<b>-7.4%</b>

The District pays (670821 – Standish Real Estate Tax) real estate taxes. Real estate charges in other municipalities are paid using account 670822 – Other R/E Tax (Non-Standish).

The District also pays annual assessments to the Maine Public Utility Commission (PUC) and the Maine Drinking Water Program. The PUC assessment has two components: general assessment (670823 – PUC Assessment) and public advocacy (670825 – PUC Public Advocate). The PUC bases the general assessment on the utility's size and the amount of time the Commission spends in each industry sector. The assessment from the Drinking Water Program (670824 – ME Drinking WTR Program) is based on population served.

## CES Renewable Energy Consortium

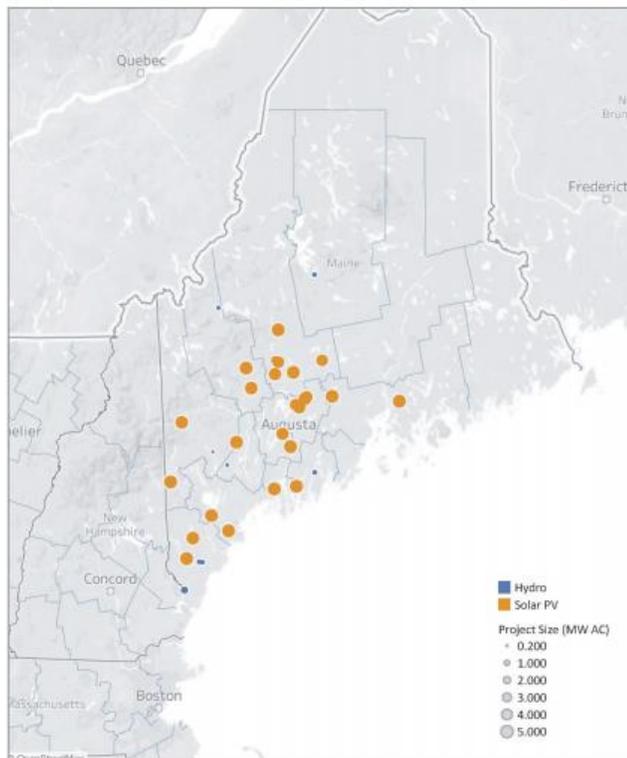
Portland Water District is among 23 CES Consortium members taking advantage of Maine’s new net energy billing credit program. The program which was enacted in June 2019, allows utility billing credits to be issued in exchange for electricity exported to the grid by qualified solar and hydro power generators.

Annually the Portland Water District (PWD) spends approximately \$1.9 million in electricity costs, and this initiative is expected to save PWD roughly \$437,000 a year, which includes \$237,000 in Renewable Energy Credits.

PWD is already seeing small savings, but full effects will not be realized until 2023 when all power generators are expected to be online.

CONSORTIUM MEMBERS	COMMITTED LOAD (MWH)	SHARE OF PROJECTS
Auburn School Department	1,805	0.9%
AVX Tantalum Corporation	4,700	2.2%
Bowdoin College	2,500	1.2%
City of Portland	20,047	9.5%
Colby College	10,000	4.7%
County of York Maine	1,949	0.9%
Falmouth Public Schools	1,744	0.8%
L L Bean Inc	20,040	9.5%
Maine Community College System	5,887	2.8%
Maine Maritime Academy	4,687	2.2%
MaineGeneral Medical Center	19,396	9.2%
MSAD 11	1,300	0.6%
MSAD 15	1,145	0.5%
Nestle Waters North America Inc	29,927	14.1%
Northern Light Healthcare System	13,525	6.4%
Pleasant River Lumber Co	12,885	6.1%
Portland Water District	9,910	4.7%
Pratt & Whitney	25,000	11.8%
Pride Manufacturing Co LLC	3,100	1.5%
RSU 14 Windham Raymond	2,311	1.1%
Scarborough School Department	3,126	1.5%
University of Maine	15,231	7.2%
Waterville Public Schools	1,504	0.7%
<b>TOTAL</b>	<b>211,720</b>	<b>100%</b>

- Across all projects, Consortium members will receive Net Energy Billing Credits and Renewable Energy Credits (RECs) for 20 years.
- Net Energy Billing Credits will vary by individual entity and their specific utility rate classes, but annual savings across the Consortium are estimated to be in the millions of dollars.
- All RECs generated will be transferred to Consortium Members
  - Each Member will decide whether to sell its RECs into the market for additional revenue or retain them to claim the greenhouse gas emissions benefits.
  - As a whole the Consortium will offset more than 50,000 metric tons of CO<sub>2</sub>e each year (based on New England regional emissions, [2018 EPA egrid](#)). For individual calculations, each 1,000 MWhs represents 239 metric tons of CO<sub>2</sub>e. **NOTE:** emissions savings may only be claimed by a Consortium Member if the RECs it receives are retained and retired.



## Introduction

Total salaries, wages and benefits budget for 2022 is \$19,121,522. This is 0.9% higher than the 2021 budget.

### Total Labor & Benefits (O&M and Capital):

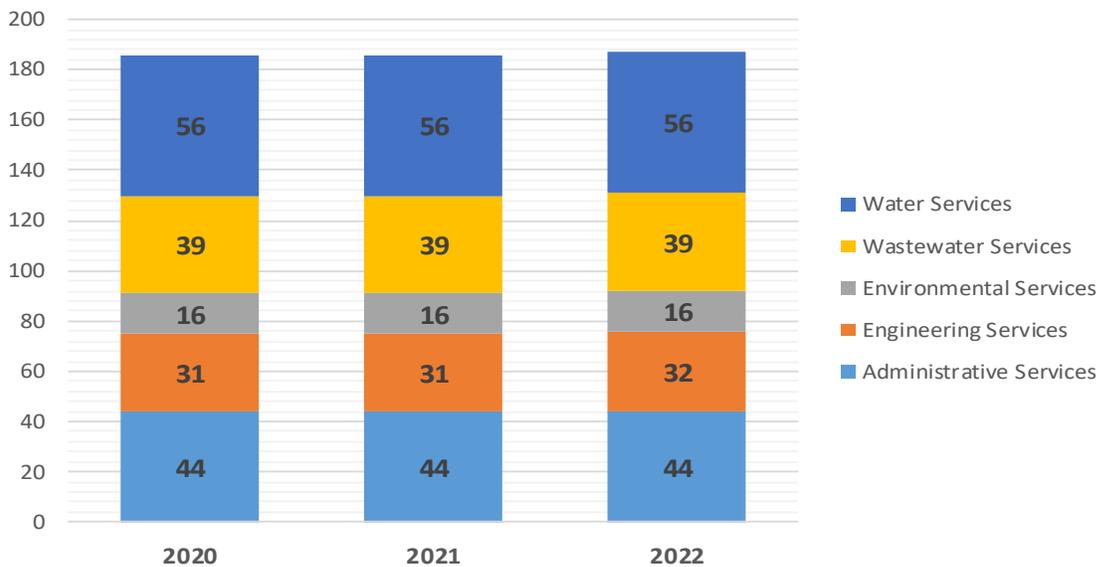
	2020	2021	2022	Budget	Budget
	Actual	Budget	Budget	Diff \$	Diff %
Salaries & Wages	\$12,171,314	\$12,906,764	\$13,262,003	\$355,239	2.8%
Employee Benefits	<u>5,220,532</u>	<u>6,051,937</u>	<u>5,859,519</u>	<u>-\$192,418</u>	<u>-3.2%</u>
<b>Actual</b>	<b>17,391,846</b>	<b>18,958,701</b>	<b>19,121,522</b>	<b>162,821</b>	<b>0.9%</b>

Employees record their labor hours by specific water and wastewater operating funds and capital projects. Benefits are allocated based on the labor dollars to the funds. It is estimated staff will allocate \$662,351 in labor/benefits to capital projects in 2022; which is \$106,556 (19.2%) higher than the 2021 budget.

	2020	2021	2022	Budget	Budget
	Actual	Budget	Budget	Diff \$	Diff %
Operations & Maintenance	\$16,951,772	\$18,402,906	\$18,457,471	\$54,565	0.3%
Capital	<u>441,074</u>	<u>555,795</u>	<u>664,051</u>	<u>108,256</u>	<u>19.5%</u>
<b>Actual</b>	<b>17,392,846</b>	<b>18,958,701</b>	<b>19,121,522</b>	<b>162,821</b>	<b>0.9%</b>

### Total Employee Positions:

Authorized positions were 187 in the 2022 Budget. This was an increase of one (1) from the 2021 Budget of 186 as Engineering Services added a position. The 2020 Budget was also 186.



## Salary Costs

The Budget for total labor costs will increase by 2.8% (\$355,239).

Labor rates for Non-Union employees were assumed to be 2.0% higher than the rates paid on July 1, 2021. The rates for Union employees is an estimate as the current labor agreement expires at the end in November 2021.

Overall hours budgeted increased 0.5% with the addition of one (1) position to the headcount and a 1.9% increase in premium hours (overtime, double time and standby).

Operating labor will increase 2.2% while capital labor will increase 21.5%, as the percent of labor dedicated to capital increases from 3.0% to 3.6%.

### Total Labor (O&M and Capital) by Type:

	2020 Actual	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	\$11,264,717	\$11,797,666	\$12,097,531	\$299,865	2.5%
Overtime	553,931	641,326	637,041	-4,285	-0.7%
Doubletime	58,793	73,135	85,137	12,002	16.4%
Standby	<u>178,381</u>	<u>186,757</u>	<u>215,033</u>	<u>28,276</u>	<u>15.1%</u>
Premium Time/Standby	791,105	901,218	937,211	35,993	4.0%
Trustee Compensation	26,200	27,000	27,000	0	0.0%
District Employed Temps	49,640	180,880	200,261	19,381	10.7%
Agency Temps	<u>39,652</u>	<u>0</u>	<u>0</u>	0	n/a
Temporary Employees	89,292	180,880	200,261	19,381	10.7%
<b>Total Labor Cost</b>	<b>12,171,314</b>	<b>12,906,764</b>	<b>13,262,003</b>	<b>355,239</b>	<b>2.8%</b>

### Total Labor Broken Out by O&M and Capital:

	2020 Actual	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Operating Expense	\$11,857,086	\$12,516,650	\$12,788,195	\$271,545	2.2%
Capital Expenditures	<u>314,228</u>	<u>390,114</u>	<u>473,808</u>	<u>83,694</u>	<u>21.5%</u>
	12,171,314	12,906,764	13,262,003	355,239	2.8%
Operating Expense	97.4%	97.0%	96.4%		
Capital Expenditures	<u>2.6%</u>	<u>3.0%</u>	<u>3.6%</u>		
	100.0%	100.0%	100.0%		

## Labor Hours/Average Pay Rates

Budgeted hours were up 2,009 hours or 0.5%. Regular hours were up 1,560 (0.4%) due to a position added in this year's budget that is planned to be filled in Q2 of 2022. Premium hours increased 1.9% while Temp Employees' hours were flat.

### Total Labor (O&M and Capital) Hours by Type:

	2020 Actual	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	372,296	386,100	387,660	1,560	0.4%
Overtime	14,909	16,026	15,621	(405)	-2.5%
Doubletime	1,154	1,343	1,518	175	13.0%
<u>Standby</u>	<u>6,393</u>	<u>6,372</u>	<u>7,051</u>	<u>679</u>	<u>10.7%</u>
Premium Time/Standby	22,456	23,741	24,190	449	1.9%
District Employed Temps	3,582	12,920	12,920	-	0.0%
<u>Agency Temps</u>	<u>1,983</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>n/a</u>
Temporary Employees	5,565	12,920	12,920	-	0.0%

### Labor Rates by Type:

On average pay rates were increased 2.3%. Changes to overtime, double-time and standby varied from the average due to shifts in personnel budgeted to cover those hours. Temporary Employee rates were increased \$1.50/hour (10.7%).

	2020 Actual	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
Regular (Hourly & Salaried)	\$30.26	\$30.56	\$31.21	\$0.65	2.1%
Overtime	37.16	40.02	40.78	0.76	1.9%
Doubletime	50.95	54.46	56.08	1.62	3.0%
<u>Standby</u>	<u>27.90</u>	<u>29.31</u>	<u>30.05</u>	<u>0.74</u>	<u>2.5%</u>
Premium Time/Standby	35.23	37.96	38.74	0.78	2.1%
District Employed Temps	13.86	14.00	15.50	1.50	10.7%
<u>Agency Temps</u>	<u>20.00</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>	<u>n/a</u>
Temporary Employees	13.12	14.00	14.00	0.00	0.0%
	30.34	30.53	31.22	0.69	2.3%

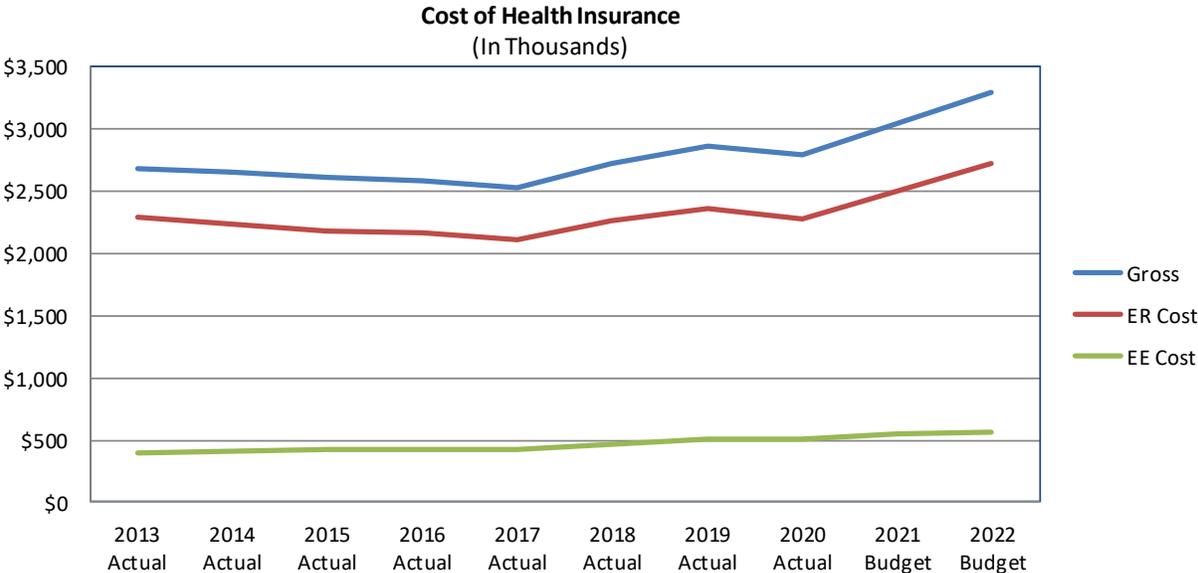
### Employee Benefits

In order to qualify for benefits, employees must work more than 20/24 hours/week (non-union/union). Seasonal or temporary employees are monitored for eligibility as required under the Affordable Care Act (ACA), but in general do not qualify for benefits. Benefits are charged to departments as a percentage of the regular non-premium pay. In 2022, the benefits percentage (not including FICA) decreased from 42.94% to 39.19% as overall benefit costs dropped 6.4% and regular wages grew 2.5%.

### Health Insurance

The 2022 Budget assumed a premium increase of 7.0%. The increase, along with shifts in employee usage, increased the gross cost (before employee contributions) by 8.1% or \$246,764. The 2022 Budget assumed the District would pay 91% of an employee’s health insurance premiums and 70% of the premiums for dependents. Total employee contributions to health insurance in 2022 are budgeted to be \$566,908.

The number of employees opting out of health insurance decreased from eleven (11) in the 2021 Budget to eight (8) in 2022. Overall, the cost of the opt-out (payout) decreased \$7,505 (22.2%) in the 2022 Budget.



The District makes health insurance coverage available to regular employees who work over 20 hours per week (24 hours per week for Union employees). The medical cost for part-time employees is prorated based on hours worked. Employees who are insured outside the District receive an amount equal to 30% of the premium cost for single employee coverage under the HMO plan. For the 2022 Budget that amount was \$63.33/week.

Year	Insured	Non-Insured	Total
2021	169	11	180
<u>2022</u>	<u>172</u>	<u>8</u>	<u>180</u>
Change	+3	-3	0

## Employee Benefits (continued)

### Pension

Pension related expenses are \$1,306,281 in the 2022 Budget. The District offers employees a defined benefit plan and a deferred compensation plan.

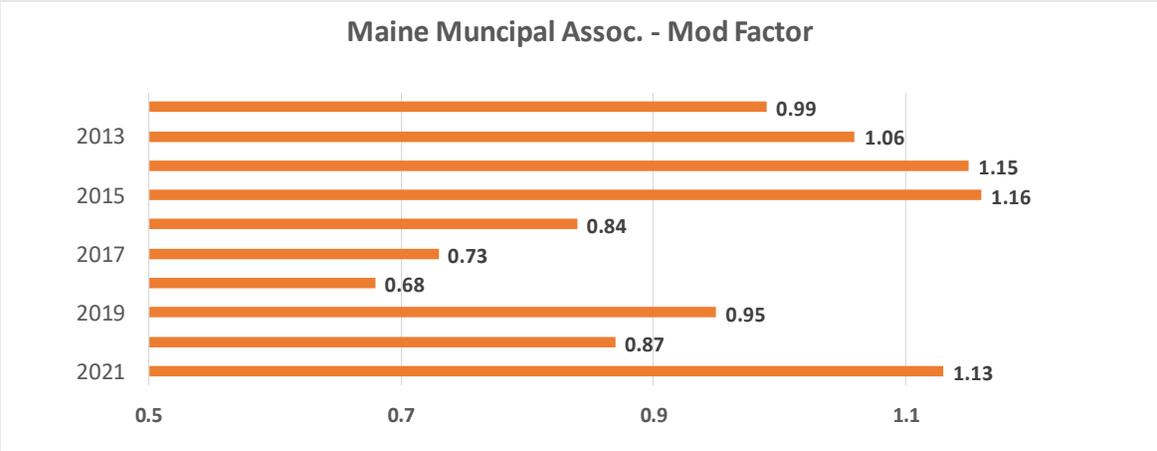
The defined benefit plan’s contributions in the 2022 Budget decreased 50.9% (\$725,682) to \$698,631. This contribution is consistent with the Board adopted long-term funding policy and represents the amount calculated by the District’s actuary in 2021. The contribution decrease is primarily due to an increase in the value of plan assets due to changes in the market. The plan is solely funded by the District without any employee contributions.

In addition, the deferred compensation plan for Union employees hired prior to 2011, and Non-Union employees hired prior to 2012, fully matches employee contributions up to \$1,225 annually. The 2022 Budget is \$85,750, this is a \$8,575 (9.1%) reduction because of the retirement of eligible employees.

New Union employees hired during or after 2011, and Non-Union employees hired during or after 2012, are enrolled in the deferred compensation plan only. The plan requires employees to contribute 3.0% of their base pay, which the District matches at a rate of 150%. Since Q2 2016, the District matches contributions up to 4.5% of their base pay, with employee contributions above 3% remaining voluntary. The expense for the match is budgeted at \$465,000 for 2022, an increase of \$65,000 (16.3%).

### Workers Compensation

The District participates in the Maine Municipal Association’s workers’ compensation program. The premium assessed is based on amount of wages and a claim experience factor. The District’s mod rate of 1.13 in 2021 is expected to drop in 2022. The 2022 Budget is \$195,000 with a deductible cost of \$9,000 resulting in a total budget of \$204,000.



### Other Benefits

Other benefits, which include dental, uniforms, unemployment, long-term disability, life insurance and a contingency for higher benefit costs total \$477,334.

**Employee Benefits (continued)**

	2020 Actual	2021 Budget	2022 Budget	Budget Diff \$	Budget Diff %
<b>Health Insurance:</b>					
6604041 - HEALTH INSURANCE-EMPLOYEE	\$2,788,710	\$3,047,210	\$3,293,974	246,764	8.1%
66040419 - HEALTH INSUR - EE CONTRIB	(508,660)	(550,380)	(566,908)	(16,528)	3.0%
6604043 - MEDICAL INSURANCE PAYOUT	31,178	33,850	26,345	(7,505)	-22.2%
	2,311,228	2,530,680	2,753,411	222,731	8.8%
<b>Pension:</b>					
66040611 - PEN EXP - DEFINED BENEFIT	18,009	21,900	21,900	-	0.0%
66040612 - PEN EXP - DEFER COMP 457	24,828	25,000	25,000	-	0.0%
6604062 - PENSION CONTRIBUTION	1,120,662	1,424,313	698,631	(725,682)	-50.9%
6604063 - DEF COMP 457 MATCH - NEW	366,959	400,000	465,000	65,000	16.3%
6604064 - DEF COMP 457 MATCH - OLD	94,087	94,325	85,750	(8,575)	-9.1%
6604065 - PENSION LEGAL EXPENSE	-	10,000	10,000	-	0.0%
	1,624,545	1,975,538	1,306,281	(669,257)	-33.9%
<b>Workers Compensation:</b>					
660409 - WORKERS' COMPENSATION	186,828	237,000	195,000	(42,000)	-17.7%
6604091 - WORKES COMP DEDUCTABLE	(392)	9,000	9,000	-	0.0%
	186,436	246,000	204,000	(42,000)	-17.1%
<b>Other Benefits:</b>					
66025 - BENEFITS CONTINGENCY	-	50,000	200,000	150,000	300.0%
660402 - LONG-TERM DISABILITY	29,302	28,000	32,000	4,000	14.3%
660403 - LIFE INSURANCE	20,775	23,000	25,000	2,000	8.7%
660407 - EDUCATION SUBSIDY	5,058	11,000	11,000	-	0.0%
660408 - PROGRAMS ADMINISTRATION	1,687	17,000	19,000	2,000	11.8%
660410 - UNEMPLOYMENT COMPENSATION	9,035	20,000	20,000	-	0.0%
660413 - PWD TRAINING PROGRAM	-	5,000	5,000	-	0.0%
6604151 - FIELD UNIFORMS	42,624	38,000	45,000	7,000	18.4%
6604152 - OFFICE CLOTHING	108	7,200	7,200	-	0.0%
660416 - DENTAL COVERAGE	50,664	65,000	65,000	-	0.0%
660417 - WELLNESS PROGRAM	-	2,500	2,500	-	0.0%
660419 - EMPLOYEE BENEFITS-MISC OTH	25,281	34,900	34,834	(66)	-0.2%
660422 - ACTUARY NON-PENSION	2,765	2,500	2,500	-	0.0%
663592 - RECRUITING SERVICES	250	7,000	7,000	-	0.0%
66595 - INDENTITY FRAUD INSURANCE	1,142	1,256	1,300	44	3.5%
	188,691	312,356	477,334	164,978	52.8%
Total Employee Benefits	4,310,900	5,064,574	4,741,026	(323,548)	-6.4%
660401 - FICA - EMPLOYERS' SHARE	909,632	987,363	1,014,551	27,188	2.8%
Total Costs	5,220,532	6,051,937	5,755,577	(296,360)	-4.9%
Total Regular Labor (Benefits Basis)	11,019,769	11,797,666	12,097,531	299,865	2.5%
Benefit Rate	39.12%	42.94%	39.19%	-3.75%	-8.7%
Total Rate (with FICA of 7.65%)	46.77%	50.59%	46.84%	-3.75%	-7.4%

**Note:** The total employee benefits expense above (\$5,755,577) does not include \$102,242 in employee benefits charged directly to departments. With these costs, the District's benefits cost is \$5,857,819.

## Authorized Headcount

The overall headcount was increased one position to 187.

The budget addition was an Associate Engineer position added to Engineering Services, increasing the Non-Union headcount from 62 to 63. The position is needed to support the increased number of infrastructure projects.

The Union headcount remained the same at 124.

	2020 Budget	2021 Budget	2022 Budget	Change
<b>Water Services</b>				
A1 - Water Administration	5	5	5	0
A2 - Wtr Transmission/Distrib	24	24	24	0
A3 - Water Treatment	11	11	11	0
A6 - Water Utility Services	<u>16</u>	<u>16</u>	<u>16</u>	<u>0</u>
	56	56	56	0
<b>Wastewater Services</b>				
B1 - Wastewater Administration	3	3	3	0
B3 - Wastewater Treatment	23	23	23	0
L9 - Wastewater Systems	<u>13</u>	<u>13</u>	<u>13</u>	<u>0</u>
	39	39	39	0
<b>Environmental Services</b>				
A5 - Water Resources	9	9	9	0
L6 - Water/WW Laboratory	<u>7</u>	<u>7</u>	<u>7</u>	<u>0</u>
	16	16	16	0
<b>Engineering Services</b>				
C1 - Facilities Services	10	10	10	0
E2 - Asset Engineering	18	18	18	0
E7 - Instrumentation	<u>3</u>	<u>3</u>	<u>4</u>	<u>1</u>
	31	31	32	0
<b>Administration</b>				
F1 - Customer Service	14	14	14	0
G1 - Information Services	8	8	8	0
H1 - Financial Services	8	8	8	0
I1 - Employee Services	4	4	4	0
J1 - BOT & Senior Management	<u>10</u>	<u>10</u>	<u>10</u>	<u>0</u>
	44	44	44	0
	<b>186</b>	<b>186</b>	<b>187</b>	<b>1</b>

## Non-Union Positions

The overall Non-Union headcount increased from 62 to 63 with the addition of an Associate Engineer position. The table below shows the requested Non-Union positions by pay range. The pay ranges are effective 01/01/21. The Job Class Code (JCC) is in parentheses:

<u>Range 1 (\$41,200 to \$61,800)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>	<u>Range 4 (\$73,500 to \$110,300)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>
EXECUTIVEADMINASST (5010)	1	1	0	CUSTOMER SERVICE MANAGER (9006)	1	1	0
GENERAL ACCOUNTINGASST (5028)	1	1	0	DIRECTOR OF FINANCESERV (9008)	1	1	0
	2	2	0	DIST SYS MANAGER - WATER (9014)	1	1	0
				ENG/ASSET MGMT SRVMNGR (9031)	1	1	0
<u>Range 2 (\$52,500 to \$78,700)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>	ENVIRONMENTAL SRV MANAGER (9020)	1	1	0
ASSOCIATE ENGINEER (5023)	4	5	1	INFORMATION SRVS MANAGER (9010)	1	1	0
CHIEF OF SECURITY OPER (1069)	1	1	0	PROJECT MANAGER ADMIN (9047)	1	1	0
ENVIRONMENTAL EDUC COORD (5017)	1	1	0	SENIOR PROJECT ENGINEER (9045)	3	3	0
ES CONSLT - EMPLOY,COMP,BEN (5003)	1	1	0		10	10	0
ES CONSLT SAFETY/TRAINING (5004)	1	1	0				
ES CONSULTANT (5036)	1	1	0	<u>Range 5 (\$82,400 to \$123,600)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>
FINANCIAL ANALYST (5020)	2	2	0	DIRECTOR OF EMPLOYEESRVS (9007)	1	1	0
IND PRETRTMNT PROGRM SUPR (5035)	1	1	0	DIRECTOR OF OPR SRVS (9011)	2	2	0
NETWORK ADMIN I (9503)	1	1	0		3	3	0
NETWORK ADMIN II (9044)	2	2	0				
PURCHASING AGENT/BUYER (5005)	1	1	0	<u>Range 6 (\$92,700 to \$138,900)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>
RIGHT OF WAY AGENT (5014)	1	1	0	CORPORATE COUNSEL (9035)	1	1	0
SCHEDULER/COORD AMAP (5032)	1	1	0	EXEC DIRECTOR OF ADMIN (9004)	1	1	0
SCHEDULER/COORDINATOR OPS (5033)	1	1	0	EXEC DIRECTOR OF AMAP (9005)	1	1	0
SOURCE PROTECTION COORD (5018)	1	1	0		3	3	0
	20	21	1				
				<u>Range 7 (\$111,700 to \$167,300)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>
<u>Range 3 (\$61,200 to \$92,000)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>	GENERAL MANAGER (9018)	1	1	0
ASSET MGMT PROGRAM MGR (9049)	1	1	0				
BUS SYS ANALYST GIS SR (9505)	1	1	0	<u>Workforce Management</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>
BUS SYSTEM ANALYST SENIOR (9504)	1	1	0	WORKFORCE MANAGEMENT (9600)	3	3	0
CUST SRV PROGRAM MANAGER (9502)	1	1	0				
DATABASE ADMINISTRATOR (9027)	1	1	0	<b>Total Positions</b>	<b>62</b>	<b>63</b>	<b>1</b>
FACILITIES MANAGER (5019)	1	1	0				
NETWORK ADMIN III (9026)	1	1	0				
PROJECT ENGINEER (9030)	3	3	0				
PUBLIC RELATIONS MANAGER (9025)	1	1	0				
REGULATORY SECURITY ADVSR (9028)	1	1	0				
TRANSM DIST SUPERVISOR (5011)	1	1	0				
UTILITY ASSET COORD (9038)	1	1	0				
UTILITY ASSET COORD WATER (9039)	1	1	0				
UTILITY SPECIALIST SUPRV (9023)	1	1	0				
WTR SVS PLNT/ SYS CHIEF OP (9002)	1	1	0				
WW CHIEF OPERATOR - TREAT (9042)	1	1	0				
WW CHIEF OPERATOR SYSTEMS (9050)	1	1	0				
WW MAINTENANCE MANAGER (9048)	1	1	0				
	20	20	0				

## Union Positions

For the 2022 Budget, the Union headcount was unchanged at 124. One Wastewater Operator (1006) was upgraded to a Wastewater Maintenance Operator (1059) and SCADA Technician I (1038) position was upgraded to a SCADA Technician III (1098). The table below shows the requested Union positions by pay grade. The rates shown are effective 11/01/21. The Union contract ends in November 2021 and as of the date of this Budget a new agreement had not been reached. The Job Class Code (JCC) is in parentheses:

<u>Paygrade - E (\$20.96/\$22.06)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>	<u>Paygrade - J (\$28.09/\$29.57)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>
ADMIN ASST FINANCE II (1094)	3	3	0	ENVIRONMENTAL SCIENTIST (1022)	3	3	0
ADMINISTRATIVE ASST WW (1083)	1	1	0	TECH MAINT PERS MECH (1096)	2	2	0
LABORATORY ASSISTANT II (1092)	1	1	0	TECH MAINT PERS MECH/ELEC (1073)	3	3	0
	5	5	0	TECH MAINT PERSON SLWTF (1070)	1	1	0
				WATER RESOURCE SPECIALIST (1021)	4	4	0
					13	13	0
<u>Paygrade - F (\$22.20/\$23.37)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>	<u>Paygrade - K (\$29.71/\$31.27)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>
CUST SERV COORD CTRL CTR (1008)	4	4	0	DIST SYSTEM FOREPERSON (1557)	5	5	0
FACILITY MAINT TECHNICIAN (1086)	3	3	0	ENV SCIENTIST LEAD (1573)	1	1	0
FACILITY SUPP GENERALIST (1091)	1	1	0	FACILITY MAINT FOREPERSON (1565)	1	1	0
TECHNICAL ADMIN ASST (1522)	2	2	0	GARAGE FOREPERSON (1528)	1	1	0
WASTEWATER OPERATOR (1006)	3	2	-1	OPERATIONS FOREMAN, SYS (1090)	1	1	0
WATER SYSTEM OPERATOR (1005)	13	13	0	OPERATIONS FOREPERSON (1053)	3	3	0
	26	25	-1	OPS FOREMAN, WW SYSTEM (1093)	1	1	0
				SCADA TECHNICIAN III (1098)	0	1	1
				UTILITIES SPEC FOREPERSON (1095)	1	1	0
					14	15	1
<u>Paygrade - G (\$23.54/\$24.78)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>	<u>Paygrade - L (\$31.55/\$33.21)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>
COLLECTIONS COORDINATOR (1028)	1	1	0	SCADA TECH FOREPERSON (1537)	1	1	0
ENVIRONMENTAL EDUCATOR (5029)	1	1	0	TECH MAINT FOREPERSON (1569)	2	2	0
EQUIP OPERATOR I (1023)	5	5	0		3	3	0
FLEET MAINTENANCE TECH (1029)	1	1	0				
MILLWRIGHT I (1049)	1	1	0				
WW MAINTENANCE OPERATOR (1059)	10	11	1				
	19	20	1				
<u>Paygrade - H (\$24.98/\$26.29)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>				
ASSET MGMT TECHNICIAN (1575)	4	4	0	Full Time Positions	123	123	0
COLLECTION SYS MAINT OPER (1576)	1	1	0	Part Time Positions	1	1	0
CUST SERV COORDINATOR (1017)	7	7	0	<b>Total Union Positions</b>	124	124	0
ENGINEERING TECHNICIAN (1020)	1	1	0				
INV CONTROL LEADPERSON (1564)	1	1	0				
	14	14	0				
<u>Paygrade - I (\$26.45/\$27.84)</u>	<u>2021</u>	<u>2022</u>	<u>Change</u>				
SCADA TECHNICIAN I (1038)	2	1	-1				
SR WW PLANT OPERATOR (1055)	5	5	0				
UTILITY SPECIALIST (1085)	13	13	0				
WTR TREAT PLANT SYS OPER (1051)	7	7	0				
WW SYSTEM MAINT/OPERATOR (1082)	3	3	0				
	30	29	-1				

## Temporary & Non-Benefit Employees

Temporary and non-benefit employees supplement regular employees particularly during the busy times of year. These positions are not benefit eligible, but the hours for benefit eligibility are monitored carefully as is required under the Affordable Care Act. All other positions are classified as “seasonal” employees who also are not offered benefits, but do have their hours tracked to monitor for benefits eligibility. The position totals are listed as full time equivalents (FTE’s). Temporary employees hired via outside agencies are also included below.

<b>Water Operations</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>Change '21 to 22</b>
A 1- Water Administration	0.35	0.35	0.35	0.00
A2 - Transmission/Distribution	0.00	0.00	0.00	0.00
A3 - Water Treatment	0.00	0.00	0.00	0.00
A6 - Utility Services	<u>1.96</u>	<u>1.96</u>	<u>1.96</u>	<u>0.00</u>
	<b>2.31</b>	<b>2.31</b>	<b>2.31</b>	<b>0.00</b>
<b><u>Wastewater Operations</u></b>				
B1- Wastewater Administration	0.00	0.00	0.00	0.00
B3 - Portland/Cape/Peaks WWTP's	0.18	0.18	0.18	0.00
L9 - Water / WW Systems	<u>0.17</u>	<u>0.17</u>	<u>0.17</u>	<u>0.00</u>
	<b>0.35</b>	<b>0.35</b>	<b>0.35</b>	<b>0.00</b>
<b><u>Environmental Services</u></b>				
A5 - Environmental Services	1.81	1.90	1.90	0.00
L6 - Water / WW Laboratory	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
	<b>1.81</b>	<b>1.90</b>	<b>1.90</b>	<b>0.00</b>
<b><u>Engineering Services</u></b>				
C1- Facility Services Administration	0.50	0.50	0.50	0.00
E2 - Planning & Design	0.92	0.92	0.92	0.00
E3 - New Mains & Construction	0.00	0.00	0.00	0.00
E7 - Instrumentation	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
	<b>1.42</b>	<b>1.42</b>	<b>1.42</b>	<b>0.00</b>
<b><u>Administration Department</u></b>				
F1- Customer Service	0.23	0.23	0.23	0.00
G1- Information Services	0.00	0.00	0.00	0.00
H1- Financial Services	0.00	0.00	0.00	0.00
I1- Employee Services	0.00	0.00	0.00	0.00
J1- Executive Office	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>
	<b>0.23</b>	<b>0.23</b>	<b>0.23</b>	<b>0.00</b>
	<b>6.12</b>	<b>6.21</b>	<b>6.21</b>	<b>0.00</b>

## Temporary & Non-Benefit Employees (continued)

### Temporary Positions Detail:

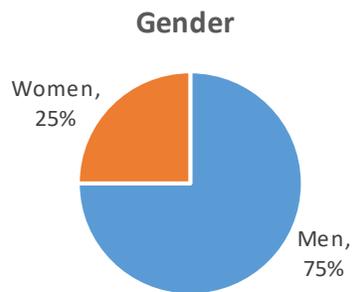
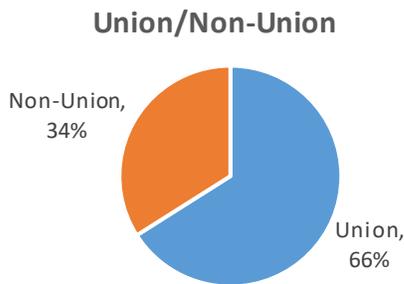
**District Paid (Account 660131):**

Org	Job Class	ACA Type	#EE	Hrs/Wk	# Wks	Hours
A1	Water Operations Intern	U	1.5	40	12	720
A5	Lake Security	V	6	12	20	1,440
	Lake Security	V	2	18	25	900
	Lake Security	V	1	10	46	460
	Environmental Educator	T	1	20	26	520
	Watershed Protection Specialist	S	1	40	16	640
A6	Water Operation Temp	S	4	40	25.5	4,080
B3/L9	Wastewater Operations Intern	U	1.5	40	12	720
C1	Facility Maintenance Technician	T	1	20	52	1,040
E2	Engineering Intern	U	4	40	12	1,920
F1	Customer Service Temp	U	1	40	12	480
			<b>24</b>			

Affordable Care Act (ACA) Types:

- S – Seasonal (cannot work more than 26 weeks)
- T – Temp EE (cannot exceed 30 hours in a single week)
- U – Under 90 Days (maximum of 12 weeks)
- V – Variable (average hours cannot exceed 30 hours/week)

### Headcount – All Regular Employees



## Work Force Management

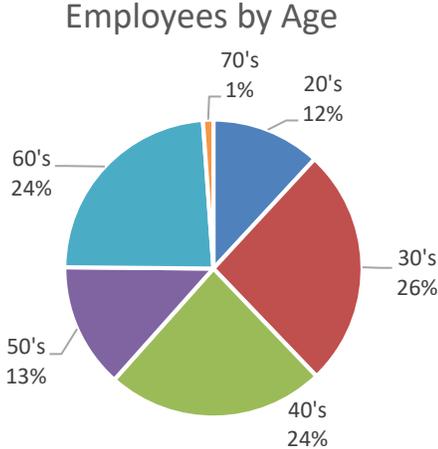
In 2022, five (5) employees will reach age 65, the normal retirement age. That would bring the total of current employees, at or above 65, to 14.

Generally speaking, the Administration Department is well positioned with existing personnel.

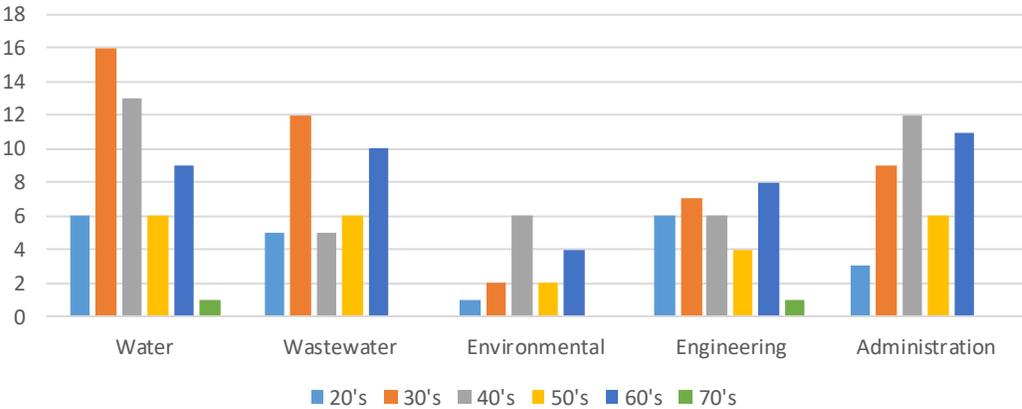
Management has been proactively managing the challenges of baby boomer retirements and the development of promoted personnel and unseasoned new hires.

The Wastewater Department has implemented an Apprentice Program to help educate new hires to the breadth of knowledge needed to operate our facilities, as well as to get exposure to other areas of PWD operations. Documentation, such as procedures for operating the rotary press, has further supported knowledge transfer.

The Water Department’s apprentice program has been satisfying its labor needs. It has served to launch capable Water System Operators into the more advanced Utility System and Water Treatment System Operator roles. The next challenge is preparing employees for the highest technical roles, and foreperson or supervisory role.



### Age by Department



## Average Length of Service (years)

Water	Wastewater	Environmental	Engineering	Administration	Grand Total
13.5	12.5	16.7	15.6	11.8	13.5

## Work Force Management (continued)

### Employee Development

The District actively promotes skill development by encouraging participation in local, regional and national organizations, and on the job training. Also, a goal of an average of 80 hours of training per employee per year has been established.

### Managing Today

To address work force management issues, the District requires all employees' performance be evaluated yearly with an action plan to assist with continuous development. Pay adjustments for non-union employees are based on performance. Non-Union Compensation policy requires that a market survey be conducted every two years to assure we are competitively compensating employees. The non-union market survey was conducted in 2020 with results implemented January 2021.

### Travel Budget

The Board of Trustees approves an annual budget for out-of-state and overnight business travel. The General Manager specifically approves these travel requests. The total costs may not exceed the District's total budget without the Board's authorization.

Department	2021 Budget	2022 Budget	Change
Water Services	\$9,000	\$11,000	\$2,000
Wastewater Services	10,950	12,950	2,000
Environmental Services	0	6,650	6,650
Engineering Services	8,100	9,100	1,000
Administration	<u>23,500</u>	<u>27,000</u>	<u>3,500</u>
	\$51,550	\$66,700	\$15,150

### Training Budget

Employee development is comprised of the annual budget for all in-state and out-of-state training events. Employee development costs include the travel budget listed above.

Department	2021 Budget	2022 Budget	Change
Water Services	\$300,104	\$304,065	\$3,961
Wastewater Services	198,895	193,769	-5,126
Environmental Services	66,744	71,168	4,424
Engineering Services	150,935	159,470	8,535
Administration	<u>342,708</u>	<u>343,068</u>	<u>360</u>
	\$1,059,386	\$1,071,540	\$12,154
Operating Expense Budget	\$32,511,482	\$33,450,113	
Percentage of O&M Budget	3.3%	3.2%	

## **Work Force Management (continued)**

### **Environment and Tools**

Organizational development and improvement is an on-going process. Management continues to evaluate areas that require additional focus as business needs and demands evolve, and as laws or rules governing our practices change. Many of these focus areas require cross-functional involvement including alignment to ensure understanding, practical and consistent application and communication of changes.

Management continues to utilize department monthly meetings to keep employees up to date on Board activities and decisions, significant capital improvement projects, business challenges and changes, and updates of organizational practices and policies.

SharePoint will continue to evolve in 2022 as our forum of daily information sharing, and document management across PWD. Developing and implementing a common methodology for cataloging documents to improve knowledge retrieval/sharing, and reducing document redundancy are significant areas of growth this year, ultimately involving every employee.

An organization's total compensation package is a key factor in establishing our competitive posture in the employment market, and employee satisfaction. A detail market review of the non-union salaries will be completed in 2021. As with most organizations, we continue to monitor our health care plan and explore ways to promote employees to live a healthy life style.

### **Employee Satisfaction Survey**

A survey of employees on the work climate is conducted every other year and was done late 2019. The survey used the same redesigned format devised in 2017 by Market Decisions Research. The results were analyzed and shared with employees and the Board for further clarification. On the following page, the key findings of the survey are identified and appropriate actions steps have been taken or included in our 2022 work plans.

## Employee Satisfaction Survey (continued)

## 2019 Suggestions for Change

## Leadership

Team oriented  
 Knowledgeable  
 Accountable  
 Consistent application of policies

## Pay and Benefits

More competitive pay  
 More and flexible time off  
 Keep Health Plan the same  
 Options for Union employees in the Retirement Plan:  
 more contribution to the Defined Benefit Plan/move to another plan

## Culture

Recognition  
 Incentives  
 Encourage training and advancement  
 Improve skills  
 GM to continue to engage employees and make changes

## Summary of Highest and Lowest Scores

- 90- 96% Working Safely at PWD
- 89% Keep the same Health Plan
- 84% Know what is expected at work
- 79% The GM has a positive impact
- 78% PWD provides excellent customer service
- 77% Supervisors exhibit leadership
- 32% Policies are applied consistently
- 33% SMT is transparent in decision making
- 34% Those who go above and beyond are rewarded
- 39% Pay is competitive
- 45% The mission of PWD makes them feel that their job is important

## Employee Satisfaction Survey (continued)

The results were shared with all employees at their departmental meetings where further comments were received to better understand the results (see prior page for some of the results shared with all employees). Additionally, the results were presented and discussed by the Board's Administration and Finance Committee. A summary was also included in the company Spigot newsletter – see below.

# 2019 Employee Satisfaction Survey

By Mary Demers

The results of the 2019 Employee Satisfaction Survey are available on Sharepoint, under the Employee Services page there is an icon on your right. You will find a wealth of information, and as I compare the results with the 2017 and the 2015 survey results, some things are new and others repeat themselves. Please review the details of the report, and if anything stands out that I may have missed, please let me know.

### What we most like at PWD

Employees say year in and year out that what they most like at Portland Water District is their co-workers. This is high praise indeed! That is something that cannot be taken for granted, and should be celebrated.

While in 2015 and 2017 employees said that their work gives them a sense of accomplishment, in the most recent survey, this was replaced with employees saying that their benefit plans and the opportunities to learn and grow are what they like the best.

In 2015 employees said that supervisors treat them well. In 2017, the mission of PWD was next on the list and in 2019, the environment of PWD: being encouraged, knowing what is expected at work and being able to perform work safely.

### Suggestions for Change

In this category, 1) pay remains at the top of the list for all three comparative years, 2) New in 2019 is Rewarding Employees, 3) Next is

policies and management communication

### High and Low Scores

Some of our highest scores were given to co-workers for their commitment to doing quality work, the General Manager for having a positive impact, PWD providing opportunities to learn and grow, and for receiving recognition in the last week for doing good work. Safety is still ranked very high. Employees continue to say that we provide good customer service and employees are happy with their benefit plans, particularly the health plan.

From our low scores, it is clear that we need to find ways of rewarding employees who go above and beyond. While pay, performance evaluations, and policies (and consistently applying them) may need work, it is important to mention that we have and are making strides in these areas. Through our work with compensation consultants we periodically check to ensure that PWD pay is competitive with similar organizations. The annual union performance evaluations were reviewed and streamlined. For new employees, three and six month probationary evaluations have been introduced to assist with communication early in an employee's career at PWD, and non-union evaluations have been revised and the new forms will be used this year. Policies are being worked on, and in some cases

they are combined and collapsed so that it will be easier and lend to more consistency. When possible, we are moving procedures to separate documents for clarity. So, we may need work in these areas, but I am glad to report that it has begun and it will continue.

### In Summary

In general, the number of employees who participated in 2019 is down approximately 10%, although the demographics closely resemble our current demographics for age, gender and years of service.

While overall rankings are similar to 2017, there is some downward shifting in positive rankings, particularly amongst union participants, older participants, and those with the most years of service.

The biggest promoters of PWD tend to be non-union, between the ages of 18-34 and those with less than five years of services. Even taking all of this information into consideration, it is interesting to note that using the Gallup Poll questions, PWD remains more engaged than the general U.S. population.

While this is a lot of information to analyze and understand, we should take this time to give a big thank you to everyone who took the time to respond to the 2019 Employee Satisfaction Survey. Your opinions do count. We are and will continue to listen to you! Thank you for your participation.

## **PORTLAND WATER DISTRICT PROFESSIONAL REPRESENTATION IN 2021**

Employees participate in the following associations.

### **Association of Metropolitan Water Agencies**

Board of Directors

### **Casco Bay Estuary Partnership**

Management Committee

### **City of Portland Integrated Plan**

Steering Committee

### **Cumberland District Public Health Council**

Executive Committee

### **Health Care Coalition of Southern Maine**

Steering Committee

### **International Right-of-Way Association**

Member, Past President

### **Maine GIS User Group**

Board of Directors

### **Maine Inland Fisheries and Wildlife**

Sebago Lake Fisheries Focus Group

### **Maine Public Relations Council**

Treasurer

### **Maine Sustainability & Water Conference**

Planning Committee

### **Maine Water Environment Association**

Government Affairs Committee

Laboratory Committee

Personal Advancement Committee

Pretreatment Committee

### **Maine Water Utilities Association**

Scholarship Fund

Utilities Finance Officer Group

### **National Association of Clean Water Agencies**

PFAS Working Group

### **New England Chapter - North American Lake Management Society**

Board of Directors

### **New England Water Environment Association**

CSO/Wet Weather Committee

Government Affairs Committee

Laboratory Committee

Laboratory Certification Subcommittee

Laboratory Practices Committee

Operations Challenge Committee

Workforce Development

### **New England Water Works Association**

Board of Directors

Customer Service Committee

Finance Management Committee

Diversity Committee

Management Development Committee

Publication Committee

Emergency Preparedness Committee

NEWWA Water WORKS Committee for Student Outreach

### **Sebago Clean Waters**

Communications Committee

Governance and Steering Committees

### **Southern Maine Children's Water Festival**

Organizing Committee

### **Southern Maine Conservation Collaborative**

Advisory Board

### **Southern Maine Regional Water Council**

Board of Directors

### **University of Maine Cooperative Extension**

Master Gardener

### **University of Southern Maine**

Institutional Biosafety Committee

### **Utilities United Against Scams**

Committee

### **Water Research Foundation**

Board of Directors

### **Water Environment Federation**

Government Affairs

## Employee Recognition and Events

### 2020 Service Awards (560 years of Service)

#### 5 YEARS

- G. Andy Smith Petersen
- Erica Pitts
- Joseph Parent
- Jaret Cox
- Justin Madore
- Robin Doiron
- Eric Rousseau
- Ashley Olmsted
- Mary Demers
- Carrie Walker



#### 10 YEARS

- Susan Jasper
- James Galasyn



#### 15 YEARS

- Roger Paradis
- Karen Luce
- Stephen Picard



#### 20 YEARS

- Donna Barnes
- Mindi Pelletier



#### 25 YEARS

- Thomas Quirk

#### 30 YEARS

- Steven Libby
- John Pollard
- Peter Rush
- David Kane
- Matthew Lane



#### 35 YEARS

- Elaine Gervais
- Timothy McMullin

#### 40 YEARS

- Robert Ricci
- Dan Rogers
- Dennis Welch
- David Taylor



### 2020 General Manager's Award



At a virtual meeting on March 2, Sarah Plummer and Carina Brown were presented with the General Manager's Award for their extraordinary efforts to adapt to the challenges of delivering educational and outreach programs during a pandemic. Not only did they completely revamp core educational programs, they volunteered to take on new roles and projects to support coworkers and enhance District services.

### Recognition



**Michelle Clements** has been awarded the 2020 Edward L. Bernays Achievement Award from her peers on the Maine Public Relations Council. This well-deserved award recognizes an individual who has exhibited extraordinary achievement, ethics, and outstanding leadership in the public relations profession.

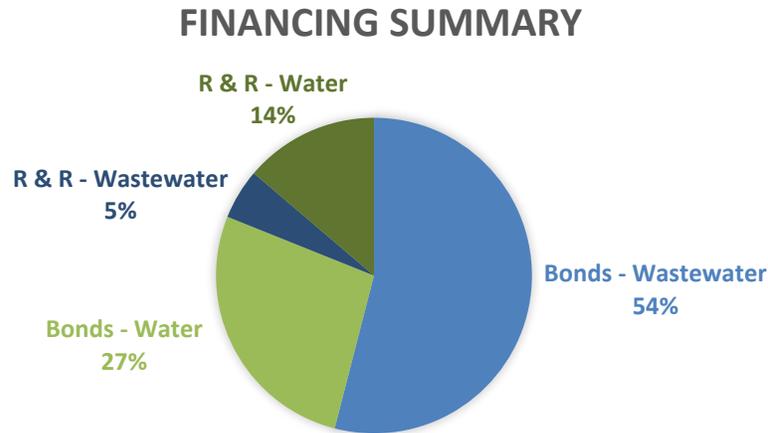


**Scott Firmin** has been selected by the Water Environment Federation as a member of the "Select Society of Sanitary Sludge Shovelers" (5S). Despite its unusual title, membership in this group is a mark of esteem for contributions in outstanding measure to the organization.



## Introduction

Capital expenditures are financed either from withdrawals from the Renewal and Replacement fund (R&R fund) established for each enterprise fund or through the issuance of a bond. In some instances they may be funded through Operating Expense or other reserves. The financing option for each project is noted when the Board authorizes the project. A summary of the planned 2022 capital financing options (source of funds) are noted in the chart below. The funds will be used to fund \$12.52 million in water projects and \$18.14 million in wastewater projects.



## Annual Fund Operating Budget

The annual budget includes the impact of issuing \$24.86 million of debt and \$4.90 million in contributions to the renewal and replacement funds. All the funds, except Gorham and Windham, are below the Board target maximum debt service. The projects financed have minimal impact to the operating expense budget, except the debt service impact. Most of the projects address aging assets so related maintenance costs of those assets will be lower.

Transportation renewal & replacement contributions are allocated to funds and departments through an hourly rate and are included in the transportation - internal line item.

	2021 Budget	2022 Budget	\$ Change
Debt Service Principal, Interest & Related Expense	10,689,438	11,492,458	\$803,020
Debt Service - Allocated	484,585	570,560	85,975
Lease Expenses	16,019	15,629	(390)
Debt Service - Watershed Protection	33,763	33,453	(310)
Annual Debt Service	11,223,805	12,112,100	888,295
Renewal & Replacement - Water - General	1,964,000	2,000,000	36,000
Renewal & Replacement - Wastewater	1,280,849	1,446,500	165,651
Renewal & Replacement - Multi-Fund Assets	960,000	1,050,000	90,000
Renewal & Replacement - Funds	4,204,849	4,496,500	291,651
Renewal and Replacement - Transportation	400,000	400,000	-
Annual Renewal and Replacement Contributions	4,604,849	4,896,500	291,651
Total Capital / Finance	15,828,654	17,008,600	1,179,946

## **Bond Financing**

### **Overview**

The District typically finances larger capital projects by issuing revenue bonds for a term of the asset's useful life or 20 years, whichever is shorter. Since most of the District's assets have a useful life in excess of 20 years, the typical bond term is 20 years. A financial analysis is conducted before issuing the bond to determine the optimal bond term. The District's charter authorizes the District, through its trustees and without vote of its inhabitants, to issue bonds to pay for the costs of capital outlays incurred in connection with acquiring, renovating or constructing water and wastewater assets.

Water bonds are secured by the revenues of customers' water rates and charges. In the event of a bond payment default, the District has the power to assess its member municipalities to provide funds to cure the default. Such assessments would be allocated based upon the municipalities' respective state valuation.

Wastewater bonds are secured by the District's sewer assessment revenue. In the event of a bond payment default, the municipalities served would be responsible for the debt service related to assets serving that municipality. The annual sewer assessment once certified to the municipality by the District is an obligation of the municipality on *parity* with the municipality's general obligation debt and entitled to the full faith and credit of the municipality.

### **Water Capital Reserve Bond**

The 2022 Budget includes issuing a \$2 million, **10-Year** bond to finance the replacement of aging water mains. In 2013, a law (35-A M.R.S. §§ 6107-A) was enacted allowing utilities to create a capital reserve to pay for infrastructure improvements, including debt service costs, and allows the reserve to be funded by designating a portion of the utility's revenue. The 2022 budget assumes that 1% of the proposed March 1, 2022 3.7% average rate adjustment will be used to fund the reserve and will pay for the debt service of the proposed \$2 million bond. The tentative plan is to issue a \$2 million bond each of the 10 years starting in 2014, which will be funded by raising water rates an additional 1% each year.

### **Bond Options**

The District issues bonds either directly to the market or through the Maine Municipal Bond Bank (MMBB). For larger projects, typically greater than \$10 million, the District considers issuing directly to the market. For smaller projects, the most cost effective option is to issue through MMBB.

MMBB has three different programs – General Bond, Drinking Water SRF (State Revolving Fund) and Clean Water SRF programs. General Bond issues are done twice a year at tax-exempt market rates. The SRF programs have a more flexible closing date and typically result in an interest rate 2% less than market. For qualifying projects, part of the principal may be forgiven. Projects financed through the SRF are competitively awarded by the State of Maine's Department of Human Services (water projects) or Department of Environmental Protection (wastewater projects). Those projects need to comply with certain procurement standards.

## **Bond Financing (continued)**

The current water bond ratings by Moody's and Standard & Poor's ratings are Aa3 and AA, respectively. Moody's bond ratings range from AAA (highest quality) to C (lowest quality) and apply a number qualifier (1-high, 2-mid and 3-low) for each letter range. Standard & Poor's top four bond ratings (AAA, AA, A and BBB) generally are regarded as eligible for bank investment (AAA is highest rating). The latest rating for both was in July 2021. Moody's noted the District's deregulation from the Maine Public Utilities Commission. Additionally, the District's sizable and wealthy service area, as well as its strong liquidity and sound debt service coverage supported by annual rate increases were factors. In addition to the items Moody noted, S&P noted the District's sound system operations with virtually unlimited water supply and good financial flexibility due to the affordability of the water rates. Moody's noted weak legal security as a challenge. The weak legal security references that the District has to be in default before evoking the municipalities' 'double barrel' general taxes cure. Staff will be presenting a provision to be added to the District's charter to strengthen this next time a charter change is being considered.

## **Maine Municipal Bond Bank**

The Maine Municipal Bond Bank was created in 1972 by the Maine State Legislature. The agency has an immense history of providing Maine's cities, towns, school systems, water and sewer districts, and other governmental entities access to low cost capital funds through the sale of its highly rated tax-exempt bonds. Established as an independent agency, the Bond Bank is administered by a board of commissioners appointed by the Governor. The Bond Bank works closely with its municipal clientele to provide unique, cost effective and competitive financing programs.

### **GENERAL RESOLUTION PROGRAM**

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For municipalities, schools districts, water districts, sewer districts and other local governments requesting loan financing through the General Resolution program. Under this tax-exempt bond financing program, the proposed debt will be paid from a General Resolution pledge of the municipality or municipalities. [Click here to learn more about the approval and financing process of this program.](#)

### **CLEAN WATER SRF PROGRAM**

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Created in 1987 by the Clean Water Act, the Maine Municipal Bond Bank serves as financial manager of the Clean Water State Revolving Loan Fund in cooperation with the Maine Department of Environmental Protection. [Click here to learn more about the approval and financing process of this program.](#)

### **DRINKING WATER SRF PROGRAM**

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Created by the Safe Drinking Water Act of 1996, the Maine Municipal Bond Bank serves as the financial manager of the Drinking Water State Revolving Loan Fund in cooperation with the Maine Department of Human Services. [Click here to learn more about the approval and financing of this program.](#)

## **Bond Financing (continued)**

### **Bond Limits**

The District has no legal limits of debt. A board-approved policy establishes a target maximum level of debt service to 35% of total fund budget and minimum debt service ratio of 1.25. The table indicates the status and projected status. The projected status is based on the projection included at the end of the Revenue section and includes bond financed capital projects as noted in the 5-year capital plan in the Capital Expenditures section. Preliminary work on a new system for Windham in the North Windham is underway. Once the decision is made to construct the facility adjustments will be made to bring their ratio to the level needed.

The Gorham & Windham funds exceed the debt service target due to a 2009 project requested by both municipalities. The project connected the Little Falls area to the Westbrook Regional Treatment Facility. Additionally the Windham's ratio is impacted by the proposed new North Windham treatment plant and a Depot Street pump station upgrade. Also, the \$12M upgrade at the Westbrook Regional Wastewater Treatment facility is planned.

### **Percent of Budget Dedicated to Debt Service - Target: Not to Exceed 35%**

<b>Funds</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
Water	22%	23%	24%	26%	26%	28%	28%	29%
Wastewater								
Cape Elizabeth	15%	17%	17%	18%	20%	21%	26%	26%
Cumberland	34%	31%	30%	29%	30%	30%	34%	33%
Gorham	34%	32%	31%	35%	37%	39%	39%	39%
Portland	20%	19%	20%	18%	18%	20%	21%	25%
Westbrook	19%	21%	21%	24%	27%	30%	29%	29%
Windham	38%	35%	34%	48%	55%	66%	55%	54%

### **Debt Service Ratio - Target: Greater or Equal to 1.25**

<b>Funds</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>
Water	1.52	1.57	1.41	1.41	1.43	1.45	1.49	1.48
Wastewater								
Cape Elizabeth	1.50	1.53	1.51	1.46	1.40	1.38	1.29	1.29
Cumberland	1.19	1.28	1.28	1.29	1.28	1.27	1.22	1.23
Gorham	1.25	1.30	1.32	1.21	1.23	1.20	1.21	1.20
Portland	1.36	1.53	1.33	1.47	1.46	1.39	1.37	1.25
Westbrook	1.67	1.56	1.52	1.28	1.21	1.18	1.18	1.18
Windham	1.19	1.29	1.28	1.10	1.11	1.00	1.05	1.05

## **Water & Wastewater Funds Debt Service**

### **Long-Term Debt Principal & Interest**

The District has \$9,331,811 and \$2,537,280 of principal and interest payments in 2022. Of the total, \$8,814,743 and \$2,425,089 of principal and interest, respectively, are expensed to the individual funds. A portion of the debt service related to Meters and also Douglass St. HVAC is allocated to water and wastewater funds based on relative benefit received by each fund. Meters have principal of \$438,438 and interest of \$101,356. Douglass St. HVAC has zero principal and \$2,063 of interest. The ABC project allocation is based on the methods of financing that were most advantageous for each particular fund. Principal for the ABC project is \$36,340 and interest is \$3,573. Lease expense, which is based on the present value of future lease payments, was budgeted for \$15,629 in 2022. Principal and interest related to Watershed Protection debt service totals are \$33,453.

### **Administrative Fees**

Maine Municipal Bond Bank (MMBB) bonds issued under the Drinking Water State Revolving Fund (DWSRF) for Water and the Clean Water State Revolving Fund (CWSRF) for Wastewater assess an administrative fee of 5% of each year's principal and coupon interest payments. Maine Municipal Bond Bank Non-SRF bonds do not assess any administrative fees. Water and Wastewater bonds issued as stand-alone bonds directly to the market also do not assess administrative fees. Total fees in 2022 are budgeted at \$226,261.

### **Debt Issuance Expense**

The Water and Wastewater funds incur costs for issuance of the permanent financing. Prior to 2014 governments were allowed to carry the cost of these issuances on their balance sheets and write off the expense over the life of the debt. A change in accounting rules now requires that all issuance costs be recognized in the year of debt issuance. That cost in 2022 is estimated to be \$142,000.

### **Premiums & Deferred Outflow**

The District has received premiums on bonds issued directly to the market. These premiums are recognized over the life of the bonds as a reduction in interest expense. In addition, a bond refunding was done in 2016 that resulted in a deferred outflow being added to the District's balance sheet. That outflow is being amortized over the remaining life of those bonds as an addition to interest expense. The net impact of these items on the 2022 Budget is a reduction of debt service expense of \$412,168.

### **Contracted Debt Service, Intra-Fund Note & Lease Expense**

The Cumberland Wastewater Fund contracts with the Town of Falmouth for the use of treatment and wastewater pump stations. Contracted Debt Service expense are payments made by Cumberland to reimburse Falmouth for debt issued to support the services provided, that cost in 2022 is \$283,279. The Windham Intra-fund note payable to Westbrook is for Windham's portion of a one-time buy-in of the regional treatment facility. The original note of \$264,733 was issued on 4/1/08 at 4.395% interest with annual principal and interest payments. The 2022 principal (\$13,240) and interest expense (\$3,637) totaling \$16,877 are budgeted for 2022.

## Water & Wastewater Funds Debt Service (continued)

### Summary of Debt Service

	Principal	Interest	MMBB & DEP Admin Fees	Debt Issuance Expense	Premiums, Deferred Outflow	Contracted & Notes	Debt Service Total
<b>Direct Charges</b>							
Water Fund:							
Water General Assets	3,605,351	1,275,659	59,828	58,000	(381,840)	-	4,616,998
Water Capital Reserve	<u>1,529,968</u>	<u>454,192</u>	<u>-</u>	<u>20,000</u>	<u>-</u>	<u>-</u>	<u>2,004,160</u>
Sub-Total Water	5,135,319	1,729,851	59,828	78,000	(381,840)	-	6,621,158
Wastewater:							
Cape Elizabeth	277,750	52,665	13,279	4,500	-	-	348,194
Cumberland	6,250	436	335	-	-	283,279	290,300
Falmouth	238,000	35,827	13,695	-	-	-	287,522
Gorham	369,039	56,140	18,117	1,848	-	-	445,144
Portland	2,005,400	376,445	83,608	45,000	(12,619)	-	2,497,834
Westbrook	609,976	127,210	26,400	3,996	-	(13,240)	754,342
<u>Windham</u>	<u>173,009</u>	<u>46,515</u>	<u>7,407</u>	<u>4,156</u>	<u>-</u>	<u>16,877</u>	<u>247,964</u>
Sub-Total Wastewater	3,679,424	695,238	162,841	59,500	(12,619)	286,916	4,871,300
Total Direct	8,814,743	2,425,089	222,669	137,500	(394,459)	286,916	11,492,458
<b>Meters/ABC project/Douglass St HVAC</b>							
Water Fund	268,708	63,908	-	2,888	(10,490)	-	325,014
Wastewater:							
Cape Elizabeth	19,776	3,387	485	149	(506)	-	23,291
Cumberland	5,682	1,314	-	72	(255)	-	6,813
Falmouth	4,869	479	268	-	-	-	5,616
Gorham	8,598	1,997	-	108	(378)	-	10,325
Portland	97,384	20,791	824	997	(3,477)	-	116,519
Westbrook	20,837	4,861	-	218	(885)	-	25,031
<u>Windham</u>	<u>1,197</u>	<u>204</u>	<u>36</u>	<u>29</u>	<u>(21)</u>	<u>-</u>	<u>1,445</u>
Sub-Total Wastewater	158,343	33,033	1,613	1,573	(5,522)	-	189,040
Contracted Services:							
Scarborough	4,712	1,098	-	1	(184)	-	5,627
<u>South Portland</u>	<u>43,015</u>	<u>8,953</u>	<u>386</u>	<u>38</u>	<u>(1,513)</u>	<u>-</u>	<u>50,879</u>
Sub-Total Contracted	47,727	10,051	386	39	(1,697)	-	56,506
Total Allocated	474,778	106,992	1,999	4,500	(17,709)	-	570,560
<b>Leases</b>							
Water Fund	9,287	147	-	-	-	-	9,434
Cape Elizabeth WW	<u>3,503</u>	<u>2,692</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>6,195</u>
Total Leases	12,790	2,839	-	-	-	-	15,629
Total Water/WW Funds	9,302,311	2,534,920	224,668	142,000	(412,168)	286,916	12,078,647
Watershed Protection	29,500	2,360	1,593	-	-	-	33,453
Total Debt Service	9,331,811	2,537,280	226,261	142,000	(412,168)	286,916	12,112,100

## Debt Service Summary

The debt service expense for each fund consists of five parts:

**Direct Debt Service** – These charges are related to assets belonging to the specific fund such as treatment plants, pump stations, mains, etc.

**Meter (Allocated) Debt Service** – Meters are an asset of the Water fund but are used to calculate both water and wastewater bills. The debt related to meters is allocated to each fund based on number and size of the meters in each municipality.

**ABC project (Allocated) Debt Service** – The District purchased a new computer system, Cayenta and Central Square Asset Management, which handles billing, work orders, time entry and asset management. Each fund is paying its respective share of the system costs. Each fund paid for their share in varying manners including issuing the bond. The bond's debt service is allocated based on the participating fund share of the bond.

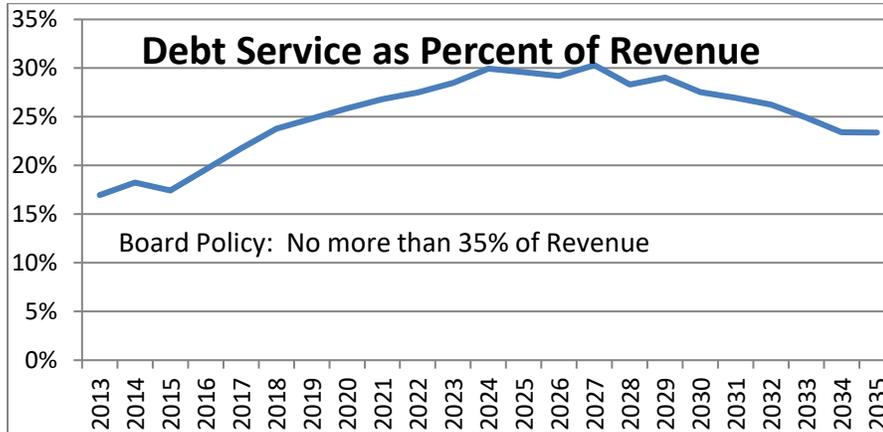
**Douglass Street HVAC (Allocated) Debt Service** – The HVAC at the Main Office at Douglass Street provides space for employees that work in water, wastewater and both areas. Douglass Street costs, including debt service financing Douglass Street facility, are allocated to each department and then allocated to each fund as appropriate (see Financial Policies for details).

**Lease Expense** – This recognizes the costs of leased property/equipment under GASB 87. Under this rule, the District calculates present value of the future lease payments and recognizes each year's portion of the cost, including interest.

	Direct	Meters (Alloc)	ABC (Alloc)	Doug St HVAC (Alloc)	Lease Expense	Total
Water Fund	6,621,158	320,803	-	4,211	9,434	6,955,606
<b>Wastewater:</b>						
Cape Elizabeth	348,194	12,898	10,176	217	6,195	377,680
Cumberland	290,300	6,708	-	105	-	297,113
Falmouth	287,522	-	5,616	-	-	293,138
Gorham	445,144	10,167	-	158	-	455,469
Portland	2,497,834	97,802	17,263	1,454	-	2,614,353
Westbrook	754,342	24,713	-	318	-	779,373
<u>Windham</u>	<u>247,964</u>	<u>642</u>	<u>760</u>	<u>43</u>	<u>-</u>	<u>249,409</u>
Sub-Total Wastewater	4,871,300	152,930	33,815	2,295	6,195	5,066,535
<b>Contracted Services:</b>						
Scarborough	-	5,626	-	1	-	5,627
<u>South Portland</u>	<u>-</u>	<u>42,726</u>	<u>8,097</u>	<u>56</u>	<u>-</u>	<u>50,879</u>
Sub-Total Contracted	-	48,352	8,097	57	-	56,506
Total Water/WW Funds	11,492,458	522,085	41,912	6,563	15,629	12,078,647
Watershed Protection	33,453	-	-	-	-	33,453
<b>Total Debt Service</b>	<b>11,525,911</b>	<b>522,085</b>	<b>41,912</b>	<b>6,563</b>	<b>15,629</b>	<b>12,112,100</b>

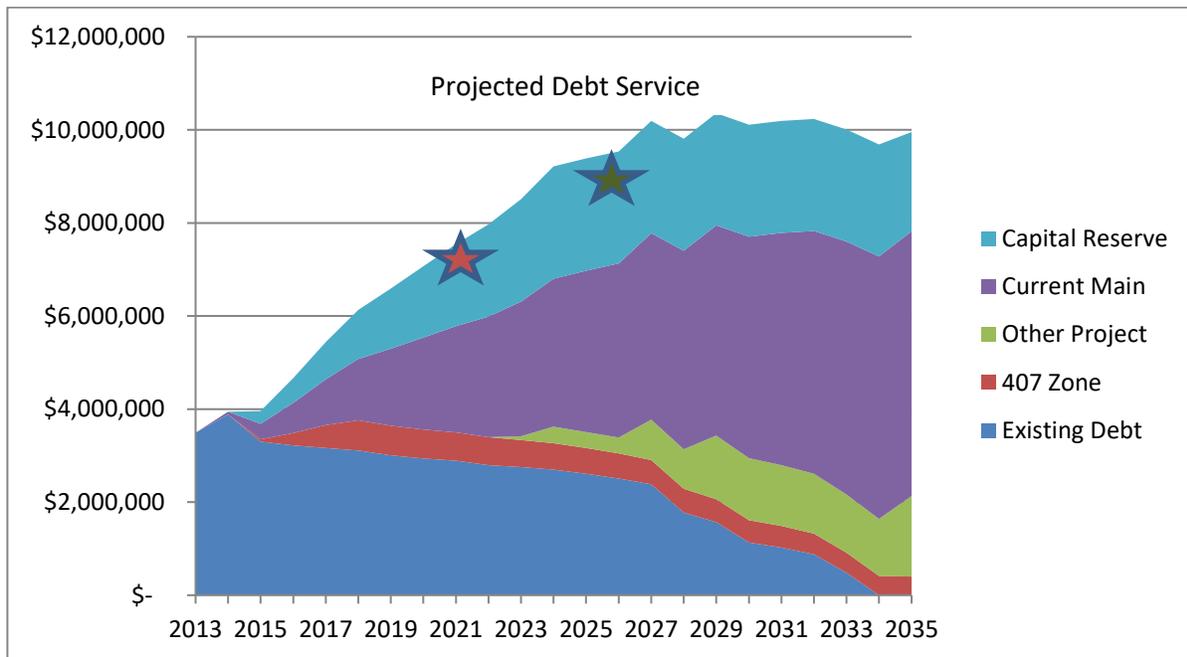
### Long-Term Water Fund Target

The long-term water fund target was established in 2013. The projected 2022-2026 ratio is at or below the established target.



### Projected Water Debt

The Water Fund has significant future bond financing needs including completing the 407 zone system upgrade and main renewals. In 2011, the Board adopted the policy to double the investment in main renewal by incrementally increasing the amount spent by \$500,000 until reaching an annual level of \$4 million in 2016. Starting in 2014, an additional annual investment of \$2 million was bonded to pay for main renewal and funded through the capital reserve. Other major projects include the installation of a new meter reading system and transmission line projects.



★ The 2022 Budget requests \$7.0 million of debt service, below the long-term plan

★ The updated multi-year projection is for \$9.3 million in 2026, \$200,000 below 2026 target.

## Water Funds Long-Term Debt

### Long-Term Debt Detail:

The table below is a list of all outstanding water fund bonds. A significant amount of debt will be paid off in the current year and will mitigate the debt service of the new bonds scheduled to be issued.

2021 bond issues may appear in the proposed section if the target issue date is after the publication date of 2022 budget.

<u>IssueDate</u>	<u>BondID</u>	<u>Purpose</u>	<u>Maturity</u>	<u>Range of Interest</u>	<u>Original Issue Principal</u>	<u>Yr End 2021 Balance</u>	<u>2022 Principal</u>	<u>Yr End 2022 Balance</u>	<u>2022 Interest Exp</u>	<u>MMBB/DEP Admin Fee</u>	<u>Issue Cost</u>	<u>PUC Docket#</u>
<b>Existing Debt Water General LTD</b>												
10/27/2005	WTR05-02	General Assets	2025	3.9500% - 5.0000%	\$900,000	\$180,000	\$45,000	\$135,000	\$3,945			2005-488
10/26/2006	WTR06-01	General Assets	2026	3.0000% - 3.0000%	\$1,500,000	\$375,000	\$75,000	\$300,000	\$6,715			2006-510
10/30/2008	WTR08-01	General Assets	2028	5.5750% - 5.5750%	\$1,500,000	\$525,000	\$75,000	\$450,000	\$25,357			2008-360
04/01/2009	WTR09-01	General Assets (407 Zone)	2028	1.0500% - 1.0500%	\$1,598,500	\$559,475	\$79,925	\$479,550	\$5,735	\$4,290		2008-360 AMENDED
08/28/2009	WTR09-04	General Assets (ARRA)	2029	0.0000% - 0.0000%	\$2,991,066	\$1,196,426	\$149,553	\$1,046,873	\$0	\$7,478		2009-128
08/28/2009	WTR09-05	General Assets (ARRA)	2029	0.0000% - 0.0000%	\$163,953	\$65,581	\$8,198	\$57,384	\$0	\$410		2009-128
05/27/2010	WTR10-02	General Assets (RZEDB)	2030	5.1730% - 5.7460%	\$400,000	\$225,000	\$25,000	\$200,000	\$6,756			2010-62
11/01/2010	WTR10-03	General Assets (DWSRF)	2030	1.0000% - 1.0000%	\$902,500	\$406,125	\$45,125	\$361,000	\$3,986	\$2,459		2010-62
10/27/2011	WTR11-01	General Assets	2031	0.5000% - 5.5000%	\$2,300,000	\$1,150,000	\$115,000	\$1,035,000	\$26,995			2011-266
05/01/2012	WTR12-03	Ozone UV Design & Forest Ave (DWSRF)	2032	1.0000% - 1.0000%	\$1,130,000	\$621,500	\$56,500	\$565,000	\$5,838	\$3,122		2011-266
10/25/2012	WTR12-01	General Assets	2032	2.4100% - 3.7060%	\$2,000,000	\$1,100,000	\$100,000	\$1,000,000	\$34,186			2012-357
05/01/2013	WTR13-01	Ozone-UV Construction Phase 1 (DWSRF)	2032	1.0000% - 1.0000%	\$2,850,000	\$1,650,000	\$150,000	\$1,500,000	\$16,250	\$8,325		2011-266
05/23/2013	WTR13-04	General Assets	2033	2.2400% - 3.7000%	\$1,428,000	\$856,800	\$71,400	\$785,400	\$26,916			2013-00167
11/04/2013	WTR13-06	Ozone-UV Construction Phase 2	2034	3.0000% - 4.2500%	\$8,000,000	\$5,200,000	\$400,000	\$4,800,000	\$207,333			2011-266
11/15/2013	WTR13-05	General Assets (DWSRF)	2033	1.0700% - 1.0700%	\$1,072,000	\$643,200	\$53,600	\$589,600	\$6,787	\$3,024		2013-00167
06/30/2014	WTR14-01	General Assets	2034	3.0000% - 3.5000%	\$2,541,000	\$1,630,000	\$130,000	\$1,500,000	\$38,698			2014-00093
05/14/2015	WTR15-01	General Assets (DWSRF) Scott Dyer Rd	2034	0.1500% - 0.1500%	\$459,000	\$299,913	\$22,864	\$277,049	\$438	\$1,166		2014-38
06/25/2015	WTR15-04	General Assets - Water Main Renewal	2035	3.0000% - 3.2500%	\$3,230,000	\$2,240,000	\$160,000	\$2,080,000	\$68,400			2015-00051
06/25/2015	WTR15-05	General Assets - Ozone Destruct	2035	3.0000% - 3.2500%	\$500,000	\$350,000	\$25,000	\$325,000	\$10,688			2015-00051
12/04/2015	WTR15-06	Water Main Renewal - Gray Road	2035	1.0000% - 1.0000%	\$270,000	\$189,000	\$13,500	\$175,500	\$1,856	\$770		2015-00051
06/20/2016	WT16-04	General Assets - Water Main Renewal	2036	3.0000% - 4.0000%	\$385,000	\$285,000	\$20,000	\$265,000	\$9,700			
06/20/2016	WT16-06	407 Zone Design	2036	3.0000% - 4.0000%	\$1,830,000	\$1,355,000	\$95,000	\$1,260,000	\$46,475			
06/20/2016	WTR16-09	General Assets 2007 Refi	2027	3.0000% - 4.0000%	\$3,034,938	\$1,669,063	\$321,563	\$1,347,500	\$55,110			
09/28/2016	WTR16-10	General Assets - Thorton Heights Phase 3	2036	1.0000% - 1.0000%	\$1,128,979	\$890,486	\$55,321	\$835,165	\$8,674	\$3,211		
09/28/2016	WTR16-11	General Assets Westbrook St DWSRF	2036	1.0000% - 1.0000%	\$566,362	\$435,157	\$27,034	\$408,123	\$4,194	\$1,563		
07/18/2017	WTR17-05	General Assets - Water Main Renewal	2037	3.0000% - 5.0000%	\$3,725,000	\$2,975,000	\$187,500	\$2,787,500	\$97,500			
03/02/2018	WTR18-01	Ward's Hill PS (407 Zone Improvement) SRF	2037	1.0000% - 1.0000%	\$1,900,000	\$1,595,792	\$99,737	\$1,496,055	\$15,792	\$5,785		
08/01/2018	WTR18-04	Asset, Billing, Customer Relations System	2028	5.0000% - 5.0000%	\$1,000,000	\$700,000	\$100,000	\$600,000	\$34,167			
08/01/2018	WTR18-05	General Assets - Water Main Renewal	2038	3.0000% - 5.0000%	\$900,000	\$765,000	\$45,000	\$720,000	\$29,438			
11/30/2018	WTR18-08	Pleasantdale/Broadway Main Renewal SRF	2038	1.0000% - 1.0000%	\$3,000,000	\$2,550,000	\$150,000	\$2,400,000	\$25,250	\$8,775		
08/01/2019	WTR19-02	General Assets - Water Main Renewal	2039	2.0000% - 5.0000%	\$4,500,000	\$4,050,000	\$225,000	\$3,825,000	\$148,875			
07/30/2020	WTR20-03	General Assets - Water Main Renewals	2040	2.0000% - 5.0000%	\$1,745,000	\$1,658,000	\$87,000	\$1,571,000	\$55,925			
11/01/2020	WTR20-07	Preble St, PO water main relocation SRF	2040	1.0000% - 1.0000%	\$220,000	\$209,000	\$11,000	\$198,000	\$2,017	\$652		
07/29/2021	WTR21-04	General Assets - Water Main Renewal	2041	2.0000% - 5.0000%	\$3,479,157	\$3,479,157	\$174,468	\$3,304,689	\$141,194			
07/29/2021	WTR21-06	407 Zone North Transmission (Depot St, WI)	2041	2.0000% - 5.0000%	\$1,152,535	\$1,152,535	\$61,064	\$1,091,471	\$47,128			
<b>Total Existing Debt Water General LTD</b>						<b>\$43,232,209</b>	<b>\$3,460,351</b>	<b>\$39,771,858</b>	<b>\$1,218,317</b>	<b>\$51,028</b>		

**Water Funds Long-Term Debt (continued)**

Long-Term Debt Detail: (continued)

The table below is a list of all outstanding water fund bonds. A significant amount of debt will be paid off in the current year and will mitigate the debt service of the new bonds scheduled to be issued.

2021 bond issues may appear in the proposed section if the target issue date is after the publication date of 2022 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2021 Balance	2022 Principal	Yr End 2022 Balance	2022 Interest Exp	MMBB/DEP Admin Fee	Issue Cost	PUC Docket#
<b>Proposed Water General LTD</b>												
11/01/2021	WT_Land_1	Watershed Protection Conservation Easement	2051	1.0000% - 1.0000%	\$600,000	\$600,000	\$20,000	\$580,000	\$5,967	\$1,300		
11/01/2021	WT_MackMain_1	Mackworth Water Main	2041	1.0000% - 1.0000%	\$2,100,000	\$2,100,000	\$105,000	\$1,995,000	\$20,825	\$6,300		
11/01/2021	WT_WinTank_1	Windham Tank Design	2041	1.0000% - 1.0000%	\$400,000	\$400,000	\$20,000	\$380,000	\$3,967	\$1,200		
11/01/2022	WT_407Zone22_1	407 Zone Improvement	2042	2.7500% - 2.7500%	\$1,800,000	\$0	\$0	\$1,800,000	\$8,250		\$18,000	
11/01/2022	WT_WtrMain-22_1	Water Mains 2022	2042	2.7500% - 2.7500%	\$4,000,000	\$0	\$0	\$4,000,000	\$18,333		\$40,000	
<b>Total Proposed Debt Water General LTD</b>						<b>\$3,100,000</b>	<b>\$145,000</b>	<b>\$8,755,000</b>	<b>\$57,342</b>	<b>\$8,800</b>	<b>\$58,000</b>	
<b>Total Existing and Proposed Debt Water General LTD</b>						<b>\$46,332,209</b>	<b>\$3,605,351</b>	<b>\$48,526,858</b>	<b>\$1,275,659</b>	<b>\$59,828</b>	<b>\$58,000</b>	
<b>Existing Debt Water Capital Reserv</b>												
06/30/2014	WTR14-02	Water Assets - Capital Reserve	2024	3.0000% - 3.0000%	\$2,000,000	\$600,000	\$200,000	\$400,000	\$30,459			2014-00093
06/25/2015	WTR15-03	Water Assets - Capital Reserve	2025	3.0000% - 3.0000%	\$2,000,000	\$800,000	\$200,000	\$600,000	\$23,000			2015-00051
06/20/2016	WT16-05	Water Assets - Capital Reserve	2026	3.0000% - 4.0000%	\$1,830,000	\$905,000	\$185,000	\$720,000	\$29,825			
07/18/2017	WTR17-06	Water Assets - Capital Reserve	2027	3.0000% - 5.0000%	\$1,875,000	\$1,125,000	\$187,500	\$937,500	\$39,688			
08/01/2018	WTR18-06	Water Assets - Capital Reserve	2028	5.0000% - 5.0000%	\$2,000,000	\$1,400,000	\$200,000	\$1,200,000	\$68,333			
08/01/2019	WTR19-03	Water Assets - Capital Reserve	2029	2.0000% - 5.0000%	\$2,000,000	\$1,600,000	\$200,000	\$1,400,000	\$72,333			
07/30/2020	WTR20-04	Water Assets - Capital Reserve	2030	5.0000% - 5.0000%	\$1,830,000	\$1,647,000	\$183,000	\$1,464,000	\$80,825			
07/29/2021	WTR21-05	Water Assets - Capital Reserve	2031	5.0000% - 5.0000%	\$1,743,308	\$1,743,308	\$174,468	\$1,568,840	\$100,562			
<b>Total Existing Debt Water Capital Reserve</b>						<b>\$9,820,308</b>	<b>\$1,529,968</b>	<b>\$8,290,340</b>	<b>\$445,025</b>			
<b>Proposed Water Capital Reserve</b>												
11/01/2022	WT_WtrMain22C_1	Water Main 2022 Cap Res	2032	2.7500% - 2.7500%	\$2,000,000	\$0	\$0	\$2,000,000	\$9,167		\$20,000	
<b>Total Proposed Debt Water Capital Reserve</b>						<b>\$0</b>	<b>\$0</b>	<b>\$2,000,000</b>	<b>\$9,167</b>	<b>\$0</b>	<b>\$20,000</b>	
<b>Total Existing and Proposed Debt Water Capital Reserve</b>						<b>\$9,820,308</b>	<b>\$1,529,968</b>	<b>\$10,290,340</b>	<b>\$454,191</b>	<b>\$0</b>	<b>\$20,000</b>	
<b>Existing Debt Meters Allocated</b>												
05/28/2009	WTR09-02	Meters	2029	2.0800% - 5.5800%	\$4,519,800	\$1,807,920	\$225,990	\$1,581,930	\$63,942			2006-403
05/28/2009	WTR09-03	Sub-Meters	2029	2.0800% - 5.5800%	\$180,200	\$72,080	\$9,010	\$63,070	\$2,549			2006-403
06/20/2016	WTR16-07	Meters 2007 Refi	2027	3.0000% - 4.0000%	\$1,734,250	\$953,750	\$183,750	\$770,000	\$31,491			
06/20/2016	WTR16-08	Submeters 2007 Refi	2027	3.0000% - 4.0000%	\$185,813	\$102,188	\$19,688	\$82,500	\$3,374			
<b>Total Existing Debt Meters Allocated</b>						<b>\$2,935,938</b>	<b>\$438,438</b>	<b>\$2,497,500</b>	<b>\$101,357</b>			
<b>Existing Debt Transportation Alloc</b>												
01/31/2020	WTR20-01	Tiger Hill Conservation Easement SRF	2029	1.0000% - 1.0000%	\$295,000	\$236,000	\$29,500	\$206,500	\$2,335	\$1,593		
<b>Total Existing Debt Transportation Allocate</b>						<b>\$236,000</b>	<b>\$29,500</b>	<b>\$206,500</b>	<b>\$2,335</b>	<b>\$1,593</b>		
<b>Total Existing and Proposed Water Debt</b>						<b>\$59,324,455</b>	<b>\$5,603,257</b>	<b>\$61,971,198</b>	<b>\$1,835,605</b>	<b>\$61,421</b>	<b>\$82,500</b>	

**Wastewater Funds Long-Term Debt**

**Long-Term Debt Detail:**

The tables below contain a list of all outstanding debt for Cape Elizabeth, Cumberland, Falmouth, Gorham and Portland wastewater funds. Bonds for the Westbrook Regional Wastewater Treatment Plant and related interception assets are proportionately split between Westbrook, Windham and Gorham.

2021 bond issues may appear in the proposed section if the target issue date is after the publication date of the 2022 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2021 Balance	2022 Principal	Yr End 2022 Balance	Accrued 2022 Interest & Fees			MMBB/DEP Admin Fee	Issue Cost
									Interest Exp	DEP Mgt Fee	Interest Expense		
<b>Existing Debt Cape Elizabeth</b>													
10/30/2008	WW08-03	Cape - Generators	2028	5.5750% - 5.5750%	\$95,000	\$33,250	\$4,750	\$28,500	\$1,606	\$0	\$1,606		
12/16/2011	WW11-01	CESO Treatment / Spurwink (SRF)	2031	1.0000% - 1.0000%	\$2,430,000	\$1,215,000	\$121,500	\$1,093,500	\$11,948	\$0	\$11,948	\$6,683	
10/25/2012	WW12-03	Cape Ottawa Rd CSO Studies / Treatment	2032	2.4100% - 3.7060%	\$160,000	\$88,000	\$8,000	\$80,000	\$2,735	\$0	\$2,735		
05/28/2015	WW15-02	Wastewater CE Garden Lane	2035	2.3400% - 3.8900%	\$240,000	\$168,000	\$12,000	\$156,000	\$5,527	\$0	\$5,527		
05/25/2017	WW17-03	Cape Elizabeth WW Projects	2037	1.9500% - 3.9180%	\$315,000	\$252,000	\$15,750	\$236,250	\$7,889	\$0	\$7,889		
11/02/2017	WW17-07	CE Wildwood PS Upgrade	2037	1.8600% - 4.0650%	\$72,000	\$57,600	\$3,600	\$54,000	\$1,753	\$0	\$1,753		
06/03/2019	WW19-01	Cape Elizabeth UV Treatment Upgrades SRF	2039	1.0000% - 1.0000%	\$875,000	\$787,500	\$43,750	\$743,750	\$7,802	\$0	\$7,802	\$2,581	
05/08/2020	WW20-02	Cape UV Treatment Upgrades SRF Loan #2	2039	1.0000% - 1.0000%	\$130,000	\$117,000	\$6,500	\$110,500	\$1,159	\$0	\$1,159	\$384	
02/18/2021	WW21-01	Little John PS Upgrades SRF	2041	1.0000% - 1.0000%	\$850,000	\$850,000	\$42,500	\$807,500	\$4,486	\$0	\$4,486	\$2,472	
07/01/2021	WW21-02	Cape Elizabeth WWTF HVAC SRF	2041	1.0000% - 1.0000%	\$388,000	\$388,000	\$19,400	\$368,600	\$3,751	\$0	\$3,751	\$1,159	
<b>Total Existing Debt Cape Elizabeth</b>						<b>\$3,956,350</b>	<b>\$277,750</b>	<b>\$3,678,600</b>	<b>\$48,655</b>	<b>\$0</b>	<b>\$48,655</b>	<b>\$13,279</b>	
<b>Proposed Cape Elizabeth</b>													
11/01/2022	WW_CapeSCADA_1	Cape Elizabeth SCADA Upgrade	2032	2.7500% - 2.7500%	\$245,000	\$0	\$0	\$245,000	\$1,123	\$0	\$1,123		\$2,500
11/01/2022	WW_Maiden Cove_1	Maiden Cove Pump Station	2042	2.7500% - 2.7500%	\$630,000	\$0	\$0	\$630,000	\$2,888	\$0	\$2,888		\$2,000
<b>Total Proposed Debt Cape Elizabeth</b>						<b>\$0</b>	<b>\$0</b>	<b>\$875,000</b>	<b>\$4,010</b>	<b>\$0</b>	<b>\$4,010</b>		<b>\$4,500</b>
<b>Total Existing and Proposed Debt Cape Elizabeth</b>						<b>\$3,956,350</b>	<b>\$277,750</b>	<b>\$4,553,600</b>	<b>\$52,666</b>	<b>\$0</b>	<b>\$52,666</b>	<b>\$13,279</b>	<b>\$4,500</b>
<b>Existing Debt Cumberland</b>													
12/22/2006	WW06-01	Cumberland -Tuttle Pump Station (SRF)	2026	1.4200% - 1.4200%	\$125,000	\$31,250	\$6,250	\$25,000	\$436	\$0	\$436	\$335	
<b>Total Existing Debt Cumberland</b>						<b>\$31,250</b>	<b>\$6,250</b>	<b>\$25,000</b>	<b>\$436</b>	<b>\$0</b>	<b>\$436</b>	<b>\$335</b>	
<b>Existing Debt Falmouth</b>													
05/01/2016	WW16-03	Mill Creek PS SRF	2036	1.0000% - 1.0000%	\$4,000,000	\$3,000,000	\$200,000	\$2,800,000	\$30,000	\$0	\$30,000	\$11,500	
03/21/2017	WW17-02	Falmouth Mill Creek PS Phase 2 SRF	2037	1.0000% - 1.0000%	\$760,000	\$608,000	\$38,000	\$570,000	\$5,827	\$0	\$5,827	\$2,195	
<b>Total Existing Debt Falmouth</b>						<b>\$3,608,000</b>	<b>\$238,000</b>	<b>\$3,370,000</b>	<b>\$35,827</b>	<b>\$0</b>	<b>\$35,827</b>	<b>\$13,695</b>	
<b>Existing Debt Gorham</b>													
04/01/2003	WW03-03	Westbrook Treatment Dewatering (SRF)	2022	0.0000% - 4.2030%	\$78,120	\$3,676	\$3,676	\$0	\$19	\$0	\$19	\$59	
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$73,185	\$7,189	\$3,610	\$3,579	\$48	\$0	\$48	\$132	
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS Upgrades (SRF)	2025	1.6300% - 1.6300%	\$252,000	\$50,400	\$12,600	\$37,800	\$804	\$0	\$804	\$671	

**Wastewater Funds Long-Term Debt (continued)**

Long-Term Debt Detail: (continued)

The tables below contain a list of all outstanding debt for Cape Elizabeth, Cumberland, Falmouth, Gorham and Portland wastewater funds. Bonds for the Westbrook Regional Wastewater Treatment Plant and related interception assets are proportionately split between Westbrook, Windham and Gorham.

2021 bond issues may appear in the proposed section if the target issue date is after the publication date of the 2022 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2021 Balance	2022 Principal	Yr End 2022 Balance	Accrued 2022 Interest & Fees			MMBB/DEP Admin Fee	Issue Cost
									Interest Exp	DEP Mgt Fee	Interest Expense		
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades SRF	2028	2.2000% - 5.5000%	\$50,400	\$17,640	\$2,520	\$15,120	\$632	\$0	\$632		
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens SRF	2029	5.5750% - 5.5750%	\$474,672	\$189,869	\$23,734	\$166,135	\$9,347	\$0	\$9,347		
01/15/2009	WW09-01	Little Falls Conveyance (SRF)	2028	1.4400% - 1.4400%	\$4,258,208	\$1,505,427	\$215,061	\$1,290,366	\$20,904	\$0	\$20,904	\$11,837	
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$253,475	\$88,716	\$12,674	\$76,043	\$855	\$0	\$855	\$678	
05/28/2009	WW09-04	Little Falls Conveyance	2029	2.0800% - 5.5800%	\$233,954	\$93,582	\$11,698	\$81,884	\$3,310	\$0	\$3,310		
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$52,360	\$23,562	\$2,618	\$20,944	\$231	\$0	\$231	\$143	
03/02/2018	WW18-02	Westbrook Sludge Dewatering Upgrade SRF	2038	1.0000% - 1.0000%	\$308,000	\$261,800	\$15,400	\$246,400	\$2,592	\$0	\$2,592	\$901	
<b>Total Existing Debt Gorham</b>						<b>\$2,241,860</b>	<b>\$303,589</b>	<b>\$1,938,271</b>	<b>\$38,743</b>	<b>\$0</b>	<b>\$38,743</b>	<b>\$14,421</b>	
<b>Proposed Gorham</b>													
11/01/2021	WW_Sludge_1	Westbrook Sludge Odor	2041	2.7500% - 2.7500%	\$77,000	\$77,000	\$3,850	\$73,150	\$2,100	\$0	\$2,100		
11/01/2021	WW_WesAer1_1	Westbrook Treatment Plant Aeration	2041	1.0000% - 1.0000%	\$1,232,000	\$1,232,000	\$61,600	\$1,170,400	\$12,217	\$0	\$12,217	\$3,696	
11/01/2022	WW_WesAer2_1	Westbrook Treatment Plant Aeration 2	2042	1.5000% - 1.5000%	\$1,232,000	\$0	\$0	\$1,232,000	\$3,080	\$0	\$3,080		\$1,848
<b>Total Proposed Debt Gorham</b>						<b>\$1,309,000</b>	<b>\$65,450</b>	<b>\$2,475,550</b>	<b>\$17,397</b>	<b>\$0</b>	<b>\$17,397</b>	<b>\$3,696</b>	<b>\$1,848</b>
<b>Total Existing and Proposed Debt Gorham</b>						<b>\$3,550,860</b>	<b>\$369,039</b>	<b>\$4,413,821</b>	<b>\$56,140</b>	<b>\$0</b>	<b>\$56,140</b>	<b>\$18,117</b>	<b>\$1,848</b>

**Existing Debt Portland**

04/01/2003	WW03-02	Portland Treatment Odor Control (SRF)	2022	0.0000% - 4.2030%	\$5,200,000	\$244,663	\$244,663	\$0	\$1,234	\$0	\$1,234	\$3,956	
11/13/2003	WW03-12	EETF Dewatering/Clarifiers/Screens/Grit (SRF)	2023	0.0000% - 4.4930%	\$1,230,000	\$118,525	\$59,527	\$58,998	\$812	\$0	\$812	\$2,221	
11/13/2003	WW03-13	EE Treatment Primary Sedimentation & Odor (SRF)	2023	0.0000% - 4.4930%	\$2,000,000	\$198,721	\$99,769	\$98,952	\$1,319	\$0	\$1,319	\$3,611	
12/03/2004	WW04-01	EE Treatment Odor Control (SRF)	2024	1.3300% - 1.3300%	\$375,000	\$56,250	\$18,750	\$37,500	\$686	\$0	\$686	\$682	
12/03/2004	WW04-02	EE Treatment Dewatering (SRF)	2024	1.3300% - 1.3300%	\$1,740,000	\$261,000	\$87,000	\$174,000	\$3,182	\$0	\$3,182	\$3,166	
12/01/2005	WW05-01	EE Treatment Hypochlorite Upgrade (SRF)	2025	1.6300% - 1.6300%	\$1,900,000	\$380,000	\$95,000	\$285,000	\$6,065	\$0	\$6,065	\$5,060	
04/01/2009	WW09-03	Portland India Pump Station Upgrade (SRF)	2028	1.4700% - 1.4700%	\$5,700,000	\$1,966,958	\$280,994	\$1,685,964	\$28,226	\$0	\$28,226	\$15,495	
11/01/2010	WW10-03	Portland Northeast & Pump Station Upgrades (SRF)	2030	1.0000% - 1.0000%	\$752,200	\$338,490	\$37,610	\$300,880	\$3,322	\$0	\$3,322	\$2,050	
10/27/2011	WW11-02	Portland Pump Station Upgrades	2031	0.5000% - 5.5000%	\$400,000	\$200,000	\$20,000	\$180,000	\$4,695	\$0	\$4,695		
11/04/2013	WW13-02	Peaks Island Sewer Extension	2033	4.0000% - 4.0000%	\$3,000,000	\$1,800,000	\$150,000	\$1,650,000	\$71,000	\$0	\$71,000		
12/04/2015	WW15-07	EEWWTF Aeration Upgrade SRF	2035	1.0000% - 1.0000%	\$2,000,000	\$1,400,000	\$100,000	\$1,300,000	\$13,750	\$0	\$13,750	\$5,700	
07/08/2016	WW16-01	EEWWTF Aeration Phase 2 SRF	2036	1.0000% - 1.0000%	\$7,000,000	\$5,250,000	\$350,000	\$4,900,000	\$51,917	\$0	\$51,917	\$20,125	
07/08/2016	WW16-02	Fore River PS SRF	2036	1.0000% - 1.0000%	\$1,200,000	\$900,000	\$60,000	\$840,000	\$8,900	\$0	\$8,900	\$3,450	
05/01/2017	WW17-01	EEWWTF Aeration Phase 3 SRF	2036	1.0000% - 1.0000%	\$1,900,000	\$1,496,055	\$99,737	\$1,396,318	\$14,794	\$0	\$14,794	\$5,735	
05/24/2018	WW18-03	Northeast Pump Station Odor Control	2038	2.4000% - 4.0420%	\$500,000	\$425,000	\$25,000	\$400,000	\$13,916	\$0	\$13,916		
07/30/2020	WW20-05	East End WWTF Primary Clarifier Upgrade	2040	2.0000% - 2.0000%	\$940,000	\$891,000	\$49,000	\$842,000	\$17,657	\$0	\$17,657		
07/30/2020	WW20-06	India St PS Tide Gate	2040	2.0000% - 2.0000%	\$410,000	\$389,000	\$21,000	\$368,000	\$7,710	\$0	\$7,710		
12/10/2020	WW20-08	Fore River Pump Station Phase 2 SRF	2040	1.0000% - 1.0000%	\$3,150,000	\$2,992,500	\$157,500	\$2,835,000	\$29,663	\$0	\$29,663	\$9,371	
07/01/2021	WW21-03	East End WWTF HVAC (dewatering area) SRF	2041	1.0000% - 1.0000%	\$422,000	\$422,000	\$21,100	\$400,900	\$4,079	\$0	\$4,079	\$1,261	
<b>Total Existing Debt Portland</b>						<b>\$19,730,162</b>	<b>\$1,976,650</b>	<b>\$17,753,512</b>	<b>\$282,926</b>	<b>\$0</b>	<b>\$282,926</b>	<b>\$81,883</b>	

**Wastewater Funds Long-Term Debt (continued)**

Long-Term Debt Detail: (continued)

The tables below contain a list of all outstanding debt for Cape Elizabeth, Cumberland, Falmouth, Gorham and Portland wastewater funds. Bonds for the Westbrook Regional Wastewater Treatment Plant and related interception assets are proportionately split between Westbrook, Windham and Gorham.

2021 bond issues may appear in the proposed section if the target issue date is after the publication date of the 2022 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2021 Balance	2022 Principal	Yr End 2022 Balance	Accrued 2022 Interest & Fees			MMBB/DEP Admin Fee	Issue Cost
									Interest Exp	DEP Mgt Fee	Interest Expense		
<b>Proposed Portland</b>													
11/01/2021	WW_ABC_1	Cayenta/Lucity	2031	1.0000% - 1.0000%	\$363,400	\$363,400	\$36,340	\$327,060	\$3,573	\$0	\$3,573	\$1,999	
11/01/2021	WW_HVAC3_1	East End HVAC Third Floor	2041	1.0000% - 1.0000%	\$575,000	\$575,000	\$28,750	\$546,250	\$5,702	\$0	\$5,702	\$1,725	
11/01/2022	WW_Elect 4_1	East End Electrical System Upgrade	2042	1.0000% - 1.0000%	\$4,790,000	\$0	\$0	\$4,790,000	\$87,817	\$0	\$87,817		\$45,000
<b>Total Proposed Debt Portland</b>						<b>\$938,400</b>	<b>\$65,090</b>	<b>\$5,663,310</b>	<b>\$97,093</b>	<b>\$0</b>	<b>\$97,093</b>	<b>\$3,724</b>	<b>\$45,000</b>
<b>Total Existing and Proposed Debt Portland</b>						<b>\$20,668,562</b>	<b>\$2,041,740</b>	<b>\$23,416,822</b>	<b>\$380,018</b>	<b>\$0</b>	<b>\$380,018</b>	<b>\$85,606</b>	<b>\$45,000</b>

**Wastewater Funds Long-Term Debt (continued):**

**Long-Term Debt Detail: (continued)**

The tables below contain a list of all outstanding debt for the Westbrook wastewater fund. Bonds for the Westbrook Regional Wastewater Treatment Plant and related interception assets are proportionately split between Westbrook, Windham and Gorham.

2021 Bond issues may appear in the proposed section if the target issue date is after the publication date of the 2022 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2021 Balance	2022 Principal	Yr End 2022 Balance	Accrued 2022 Interest & Fees			MMBB/DEP Admin Fee	Issue Cost
									Interest Exp	DEP Mgt Fee	Interest Expense		
<b>Existing Debt Westbrook</b>													
04/01/2003	WW03-03	Westbrook Treatment Dewatering (SRF)	2022	0.0000% - 4.2030%	\$284,208	\$13,372	\$13,372	\$0	\$67	\$0	\$67	\$216	
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$266,254	\$26,153	\$13,132	\$13,021	\$175	\$0	\$175	\$481	
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS Upgrades (SRF)	2025	1.6300% - 1.6300%	\$1,316,800	\$263,360	\$65,840	\$197,520	\$4,203	\$0	\$4,203	\$3,507	
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades SRF	2028	2.2000% - 5.5000%	\$183,360	\$64,176	\$9,168	\$55,008	\$2,298	\$0	\$2,298		
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens SRF	2029	5.5750% - 5.5750%	\$2,384,641	\$953,856	\$119,232	\$834,624	\$46,960	\$0	\$46,960		
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$974,925	\$341,224	\$48,746	\$292,478	\$3,290	\$0	\$3,290	\$2,608	
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$113,220	\$50,949	\$5,661	\$45,288	\$500	\$0	\$500	\$309	
12/04/2015	WW15-08	Westbrook CSO Upgrade SRF	2035	1.0000% - 1.0000%	\$1,000,000	\$700,000	\$50,000	\$650,000	\$6,875	\$0	\$6,875	\$2,850	
03/02/2018	WW18-02	Westbrook Sludge Dewatering Upgrade SRF	2038	1.0000% - 1.0000%	\$666,000	\$566,100	\$33,300	\$532,800	\$5,606	\$0	\$5,606	\$1,948	
09/01/2018	WW18-07	Dana Court PS Upgrades SRF	2039	1.0000% - 1.0000%	\$2,200,000	\$1,980,000	\$110,000	\$1,870,000	\$19,617	\$0	\$19,617	\$6,490	
<b>Total Existing Debt Westbrook</b>						<b>\$4,959,190</b>	<b>\$468,451</b>	<b>\$4,490,739</b>	<b>\$89,591</b>	<b>\$0</b>	<b>\$89,591</b>	<b>\$18,408</b>	
<b>Proposed Westbrook</b>													
11/01/2021	WW_Sludge_1	Westbrook Sludge Odor	2041	2.7500% - 2.7500%	\$166,500	\$166,500	\$8,325	\$158,175	\$4,541	\$0	\$4,541		
11/01/2021	WW_WesAer1_1	Westbrook Treatment Plant Aeration	2041	1.0000% - 1.0000%	\$2,664,000	\$2,664,000	\$133,200	\$2,530,800	\$26,418	\$0	\$26,418	\$7,992	
11/01/2022	WW_WesAer2_1	Westbrook Treatment Plant Aeration 2	2042	1.5000% - 1.5000%	\$2,664,000	\$0	\$0	\$2,664,000	\$6,660	\$0	\$6,660		\$3,996
<b>Total Proposed Debt Westbrook</b>						<b>\$2,830,500</b>	<b>\$141,525</b>	<b>\$5,352,975</b>	<b>\$37,619</b>	<b>\$0</b>	<b>\$37,619</b>	<b>\$7,992.00</b>	<b>\$3,996</b>
<b>Total Existing and Proposed Debt Westbrook</b>						<b>\$7,789,690</b>	<b>\$609,976</b>	<b>\$9,843,714</b>	<b>\$127,210</b>	<b>\$0</b>	<b>\$127,210</b>	<b>\$26,400</b>	<b>\$3,996</b>

**Wastewater Funds Long-Term Debt (continued):**

**Long-Term Debt Detail: (continued)**

The tables below contain a list of all outstanding debt for the Windham wastewater fund. Bonds for the Westbrook Regional Wastewater Treatment Plant and related interception assets are proportionately split between Westbrook, Windham and Gorham.

2021 Bond issues may appear in the proposed section if the target issue date is after the publication date of the 2022 budget.

IssueDate	BondID	Purpose	Maturity	Range of Interest	Original Issue Principal	Yr End 2021 Balance	2022 Principal	Yr End 2022 Balance	Accrued 2022 Interest & Fees			MMBB/DEP Admin Fee	Issue Cost
									Interest Exp	DEP Mgt Fee	Interest Expense		
<b>Existing Debt Windham</b>													
04/01/2003	WW03-03	Westbrook Treatment Dewatering (SRF)	2022	0.0000% - 4.2030%	\$9,672	\$455	\$455	\$0	\$2	\$0	\$2	\$7	
11/13/2003	WW03-14	Westbrook Treatment Headworks Upgrade (SRF)	2023	0.0000% - 4.4930%	\$9,061	\$890	\$447	\$443	\$6	\$0	\$6	\$16	
12/01/2005	WW05-02	WB Cottage Place/ E. Bridge PS Upgrades (SRF)	2025	1.6300% - 1.6300%	\$31,200	\$6,240	\$1,560	\$4,680	\$100	\$0	\$100	\$83	
05/15/2008	WW08-01	WB Treatment Generator / Electrical Upgrades SRF	2028	2.2000% - 5.5000%	\$6,240	\$2,184	\$312	\$1,872	\$78	\$0	\$78		
10/30/2008	WW08-02	Westbrook Cottage Place/ E. Bridge PS Screens SRF	2029	5.5750% - 5.5750%	\$40,687	\$16,275	\$2,034	\$14,240	\$801	\$0	\$801		
01/15/2009	WW09-01	Little Falls Conveyance (SRF)	2028	1.4400% - 1.4400%	\$1,681,792	\$594,573	\$84,939	\$509,634	\$8,256	\$0	\$8,256	\$4,675	
02/27/2009	WW09-02	WB Headworks/Cottage Place/ E Bridge (SRF)	2028	1.0000% - 1.0000%	\$21,600	\$7,560	\$1,080	\$6,480	\$73	\$0	\$73	\$58	
05/28/2009	WW09-04	Little Falls Conveyance	2029	2.0800% - 5.5800%	\$196,046	\$78,418	\$9,802	\$68,616	\$2,773	\$0	\$2,773		
11/01/2010	WW10-04	Westbrook Treatment Misc Upgrades (SRF)	2030	1.0000% - 1.0000%	\$4,420	\$1,989	\$221	\$1,768	\$20	\$0	\$20	\$12	
03/02/2018	WW18-02	Westbrook Sludge Dewatering Upgrade SRF	2038	1.0000% - 1.0000%	\$26,000	\$22,100	\$1,300	\$20,800	\$219	\$0	\$219	\$76	
<b>Total Existing Debt Windham</b>						<b>\$730,684</b>	<b>\$102,151</b>	<b>\$628,534</b>	<b>\$12,328</b>	<b>\$0</b>	<b>\$12,328</b>	<b>\$4,928</b>	
<b>Proposed Windham</b>													
11/01/2021	WW_Depot_1	Depot Street Pump Station	2041	2.7500% - 2.7500%	\$640,000	\$640,000	\$32,000	\$608,000	\$17,453	\$0	\$17,453		
11/01/2021	WW_NoWin_1	North Windham System Design	2051	1.0000% - 1.0000%	\$1,000,000	\$1,000,000	\$33,333	\$966,667	\$9,944	\$0	\$9,944	\$2,167	
11/01/2021	WW_Sludge_1	Westbrook Sludge Odor	2041	2.7500% - 2.7500%	\$6,500	\$6,500	\$325	\$6,175	\$177	\$0	\$177		
11/01/2021	WW_WesAer1_1	Westbrook Treatment Plant Aeration	2041	1.0000% - 1.0000%	\$104,000	\$104,000	\$5,200	\$98,800	\$1,031	\$0	\$1,031	\$312	
11/01/2022	WW_NoWin2_1	North Windham Construction 1	2052	1.5000% - 1.5000%	\$2,000,000	\$0	\$0	\$2,000,000	\$5,000	\$0	\$5,000		\$3,000
11/01/2022	WW_Rt202_1	Route 202 Pump Station Generator	2042	2.7500% - 2.7500%	\$70,000	\$0	\$0	\$70,000	\$321	\$0	\$321		\$1,000
11/01/2022	WW_WesAer2_1	Westbrook Treatment Plant Aeration 2	2042	1.5000% - 1.5000%	\$104,000	\$0	\$0	\$104,000	\$260	\$0	\$260		\$156
<b>Total Proposed Debt Windham</b>						<b>\$1,750,500</b>	<b>\$70,858</b>	<b>\$3,853,642</b>	<b>\$34,187</b>	<b>\$0</b>	<b>\$34,187</b>	<b>\$2,479</b>	<b>\$4,156</b>
<b>Total Existing and Proposed Debt Windham</b>						<b>\$2,481,184</b>	<b>\$173,009</b>	<b>\$4,482,175</b>	<b>\$46,515</b>	<b>\$0</b>	<b>\$46,515</b>	<b>\$7,406</b>	<b>\$4,156</b>

## Capital Reserve – Water

In 2013, a new state law (35-A M.R.S. 6107-A, Funding for Infrastructure Improvements for Water Utilities) was enacted. The law allows a water utility to fund future infrastructure improvements through recovery in rates. As required by the law, the Maine Public Utilities Commission adopted a rule (Chapter 675 – Infrastructure Surcharge and Capital Reserve Accounts) that outlines the maximum amount of funds the may be recovered through rates, use of those funds, and reporting requirements.

The maximum dollar amount of funds that may be recovered through rates depends on the size of the utility. Portland Water District is considered a large utility (utilities with revenues greater than \$750,000 are considered large) and therefore the amount of revenue requirement attributed to funding a capital reserve should not exceed either of the following:

1% of Gross Plant (as of 12/31/20)	\$ 3,524,491
10% of Revenue Requirement (2021 Budget)	\$ 2,553,051

The capital reserve can only be used to pay for the costs of construction associated with the projects identified in the utility's System Infrastructure Assessment Report (SIA) and are related to transmission, distribution, and treatment of water. The District submitted a SIA that identified water mains that need to be replaced due to age or type of material.

SIA Program	Main to be replaced (ft)	Cost per foot	Miles of pipe	Program Cost
A (Cast Iron pipe >100 years old)	559,680	\$225	106 miles	\$126 million
B (Cast Iron pipe 75-100 years old)	443,520	\$225	84 miles	\$100 million
C (Galvanized Iron pipe)	59,136	\$200	11 miles	\$12 million
D (2 ½" diameter Cast Iron pipe)	84,480	\$200	16 miles	\$17 million
<b>Totals</b>			<b>217 miles</b>	<b>\$255 million</b>

The District has chosen to increase each year an additional 1% for 10 years with the revenue reserved to pay the debt service costs of issuing a \$2 million bond each year. The bond proceeds will be used to replace water mains identified in the SIA.

Starting in 2014, 1% of the rate adjustments has been dedicated to the reserve.

	2021 Budget	2021 Projected	2022 Budget
Revenue	1,788,008	1,788,008	2,043,277
Expense	1,833,240	1,833,240	1,863,241
Annual Charge	(45,232)	(45,232)	180,036
Carry Forward	876,737	894,562	849,330
	831,505	849,330	1,029,366

## Renewal & Replacement

Each fund contributes to a renewal and replacement (R&R) fund. These funds are used to pay for smaller capital projects as an alternative to issuing long-term debt. Each fund maintains a R&R fund for assets owned by that fund. In addition, R&R balances are maintained for other groups of assets that, while owned by the Water fund, serve the needs of all District funds. These other R&R balances are:

**Douglass St** – This fund is for the building and grounds that serve as the District’s main headquarters.

**Meters** – Water meters measure water flow but provide data used in both water and wastewater billing.

**Technology** – This category includes both computer hardware and software systems that serve all District funds.

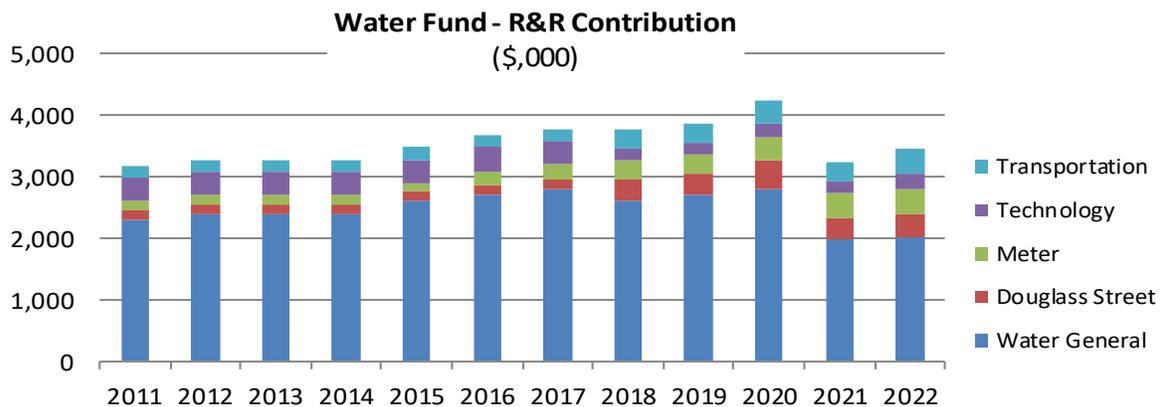
**Transportation** – These assets are used by all District funds. The charge for the R&R funding is part of the hourly rate of each vehicle (an internal line item).

### 2022 Contributions:

	Fund	Douglass St	Meters	Technology	Combined*	Total
Water	\$2,000,000	\$256,720	\$262,320	\$138,525	\$657,565	\$2,657,565
Wastewater:						
Cape Elizabeth	145,000	13,200	7,000	9,900	30,100	175,100
Cumberland	40,000	6,400	4,000	5,200	15,600	55,600
Gorham	75,000	9,600	6,360	6,350	22,310	97,310
Portland	1,000,000	88,600	68,200	71,525	228,325	1,228,325
Westbrook	168,000	19,400	16,960	16,175	52,535	220,535
Windham	18,500	2,600	520	2,325	5,445	23,945
Contracted Services:						
Falmouth	-	-	-	-	-	-
Scarborough	-	40	4,600	-	4,640	4,640
South Portland	-	3,440	30,040	-	33,480	33,480
R&R - Funds	\$3,446,500	400,000	400,000	250,000	1,050,000	\$4,496,500
R&R - Transportation						400,000
R&R - Total						<b>\$4,896,500</b>
*Combined = Douglass St + Meters + Technology						

## Water Fund - Renewal & Replacement Fund

The District will contribute a total of \$3,450,000 to the renewal and replacement fund in 2022. Similar to the debt service costs, renewal and replacement reserve is directly received from the fund or indirectly through the appropriate allocation method from all funds. The Water renewal and replacement contribution is capped at approximately \$4,858,000, which is the estimated depreciation of all water assets, per Maine Public Utility Commission rules. Starting in 2011, the District began to track and reserve balances by different categories of renewal & replacement with part of the general surplus designated to the transportation, technology, meter and Douglass Street building reserves.



	Water General	Douglass Street	Water Meters	Technology	Transportation	Total
Balance 12/31/19	7,855,513	410,699	(300,166)	211,307	315,884	8,493,237
Contribution - 2020	2,800,000	460,000	390,000	200,000	320,000	4,170,000
Expenditure	(4,178,499)	(320,062)	(197,671)	(245,374)	(351,085)	(5,292,691)
Balance 12/31/20	6,477,014	550,637	(107,837)	165,933	284,799	7,370,546
Contribution - 2021	1,964,000	360,000	400,000	200,000	400,000	3,324,000
Expenditure (Est'd)	(4,728,595)	(510,000)	(250,000)	(299,641)	(392,236)	(6,180,472)
Balance 12/31/21 (Est'd)	3,712,419	400,637	42,163	66,292	292,563	4,514,074
Contribution - 2022	2,000,000	400,000	400,000	250,000	400,000	3,450,000
Expenditure (Est'd)	(2,810,000)	(360,000)	(400,000)	(250,000)	(400,000)	(4,220,000)
Balance 12/31/22 (Est'd)	2,902,419	440,637	42,163	66,292	292,563	3,744,074
Target R&R Balance (1% of Gross Fixed Asset Cost)						\$3,522,506

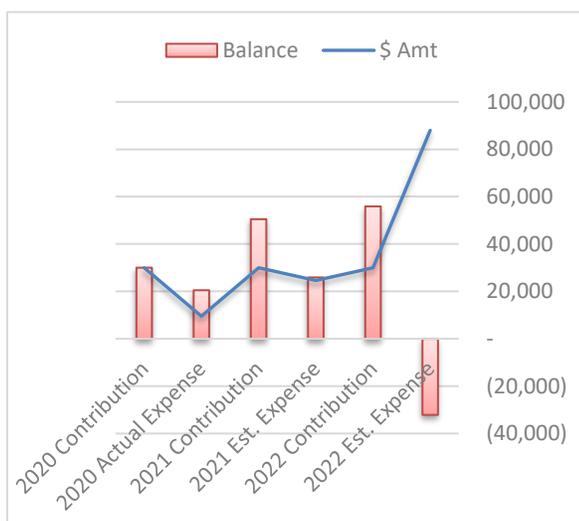
## Wastewater Funds - Renewal & Replacement Funds

Each wastewater fund includes an annual contribution to the renewal and replacement (R&R) reserve to finance capital additions or replacements. At the end of 2020, Gorham's operating surplus of \$58,167 was transferred to Gorham's R&R reserve. Proceeds from an agreement with CMP, in the amount of \$100,000, was transferred to Portland's R&R reserve along with \$398,067 of operating surplus.

In 2022, R&R contributions decreased for Gorham (\$100,000 to \$75,000), Westbrook (\$270,000 to \$168,000) and Windham (\$35,849 to \$18,500). Contributions for Cape Elizabeth (\$135,000 to \$145,000) and Portland (\$700,000 to \$1,000,000) increased. Cumberland remained the same at \$40,000.

The estimated 2022 expenditures from the R&R funds are based on the 2022 Capital Improvements Budget as outlined in the Capital Expenditure section.

	CAPE					
	ELIZABETH	CUMBERLAND	GORHAM	PORTLAND	WESTBROOK	WINDHAM
Balance 12/31/19	420,939	334,513	1,095,583	4,779,362	3,759,724	342,063
Contribution - 2020	120,700	40,000	90,800	1,090,000	300,000	35,849
Operating Surplus Transfer	-	-	4,287	125,000	-	-
<u>Expenditure</u>	<u>(18,187)</u>	<u>(9,549)</u>	<u>(165,331)</u>	<u>(529,114)</u>	<u>(39,028)</u>	<u>(68,413)</u>
Balance 12/31/20	523,452	364,964	1,025,339	5,465,248	4,020,696	309,499
Contribution - 2021	135,000	40,000	100,000	700,000	270,000	35,849
Operating Surplus Transfer	-	-	58,167	498,067	-	-
<u>Expenditure (Est'd)</u>	<u>(133,115)</u>	<u>(263,044)</u>	<u>(358,598)</u>	<u>(2,139,975)</u>	<u>(447,820)</u>	<u>(58,075)</u>
Balance 12/31/21 Estimated	525,337	141,919	824,908	4,523,340	3,842,876	287,273
Contribution - 2022	145,000	40,000	75,000	1,000,000	168,000	18,500
Operating Surplus Transfer	-	-	-	-	-	-
<u>Expenditure (Est'd)</u>	<u>(125,000)</u>	<u>(20,000)</u>	<u>(66,200)</u>	<u>(1,225,000)</u>	<u>(119,900)</u>	<u>(23,900)</u>
Balance 12/31/22 Estimated	545,337	161,919	833,708	4,298,340	3,890,976	281,873
Target Renewal & Replacement (5% of Gross Capital Assets)	\$871,000	\$465,000	\$910,000	\$5,770,000	\$1,130,000	\$155,000



The Cumberland fund has a separate contracted R&R reserve that is used to pay its share of capital expenses to the Town of Falmouth. Falmouth operates the facilities and manages the capital projects. They then bill the Cumberland fund for a portion of those capital expenditures because those Falmouth facilities are also used to provide wastewater services to Cumberland. The contracted R&R reserve started in 2018 with a contribution of \$52,910. Contributions for 2020, 2021 and 2022 are each \$30,000. The projected 2022 end of year balance is a deficit of \$32,116.

## Water Fund - Rate Stabilization & Water Master Plan Funds

On January 27, 2020, the District's Board of Trustees authorized the creation of two new funds – Water Rate Stabilization and Water Master Plan funds. They also allocated \$1,244,548 of the 2019 annual surplus to the funds.

### **Water Rate Stabilization Fund**

The purposes of the fund are to assist in smoothing rates as part of the District's multi-year and annual financial planning and to assure that the minimum debt coverage ratio established in the District's Debt Policy, as amended from time to time, is met. Funds deposited into this reserve are treated as operating costs in the year of deposit and such funds disbursed from this fund will be treated as revenues in the year of disbursed for the purposes of computing the District's debt service coverage ratio. Any withdrawal from the fund will be authorized by the Board.

### **Water Master Plan Fund**

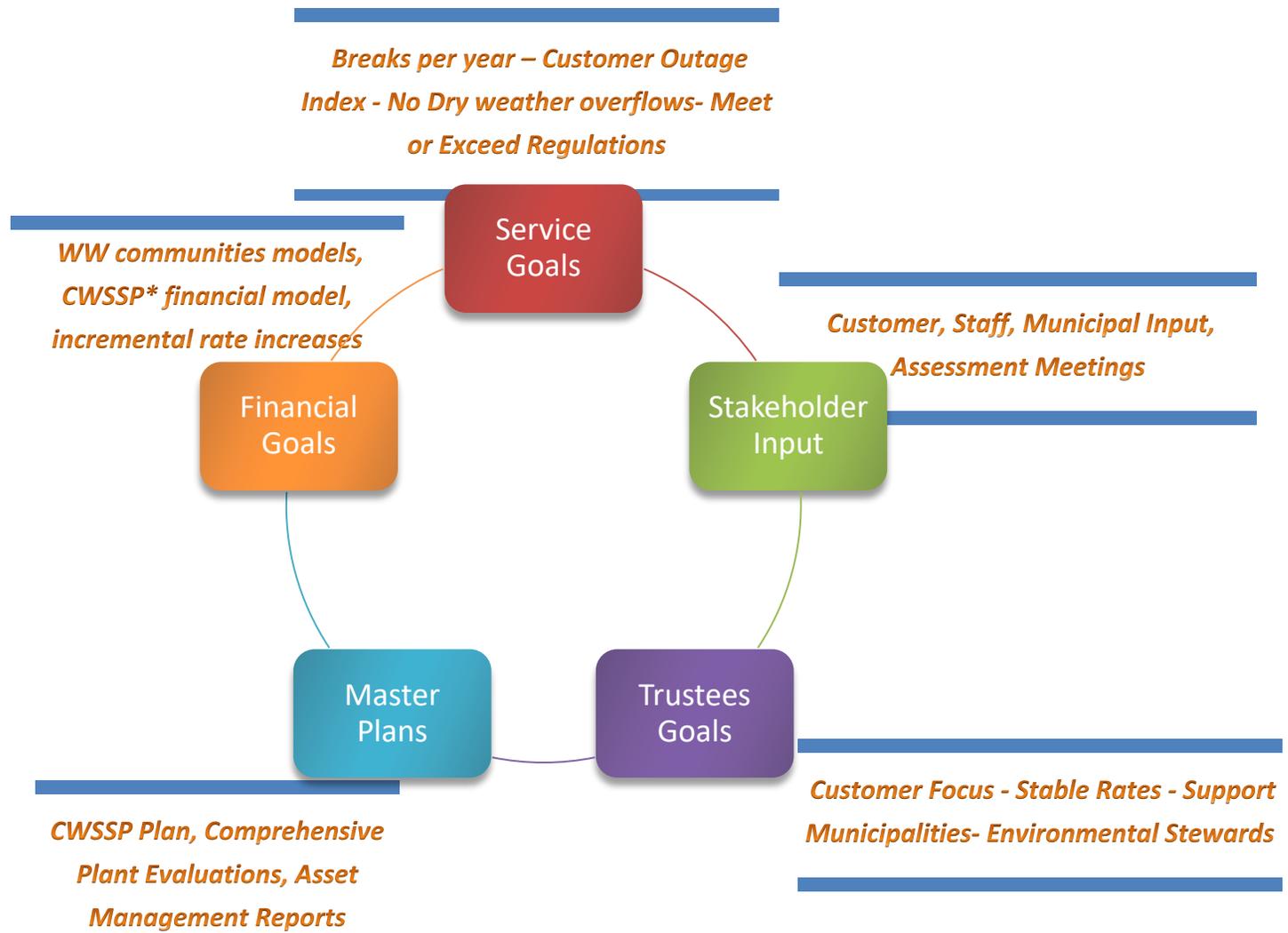
The purpose of the fund is to provide funding for the development and updating of the water master plan and related asset assessments. The District periodically creates and updates a long-term asset management plan and perform assessments of asset to determine the each asset conditions. Any withdrawal from this fund will be approved by the Board. At the Board's discretion, it may reallocate the fund for other District's purposes.

The 2021 Capital Improvement Plan includes authorizing starting a \$750,000 Comprehensive Asset Management Strategic Plan project (program 3, subprogram 3071). It is expected to be spent in 2022. Additional assessment on specific asset classes may be completed and funded from this fund.

	Balance 01/01/21	2021 Projected	2022 Budget	Balance 12/31/21
Rate Stabilization Fund	\$300,000	\$0	\$0	\$300,000
Water Master Plan	944,548	0	(750,000)	194,548
	\$1,244,548	\$0	(\$750,000)	\$494,548

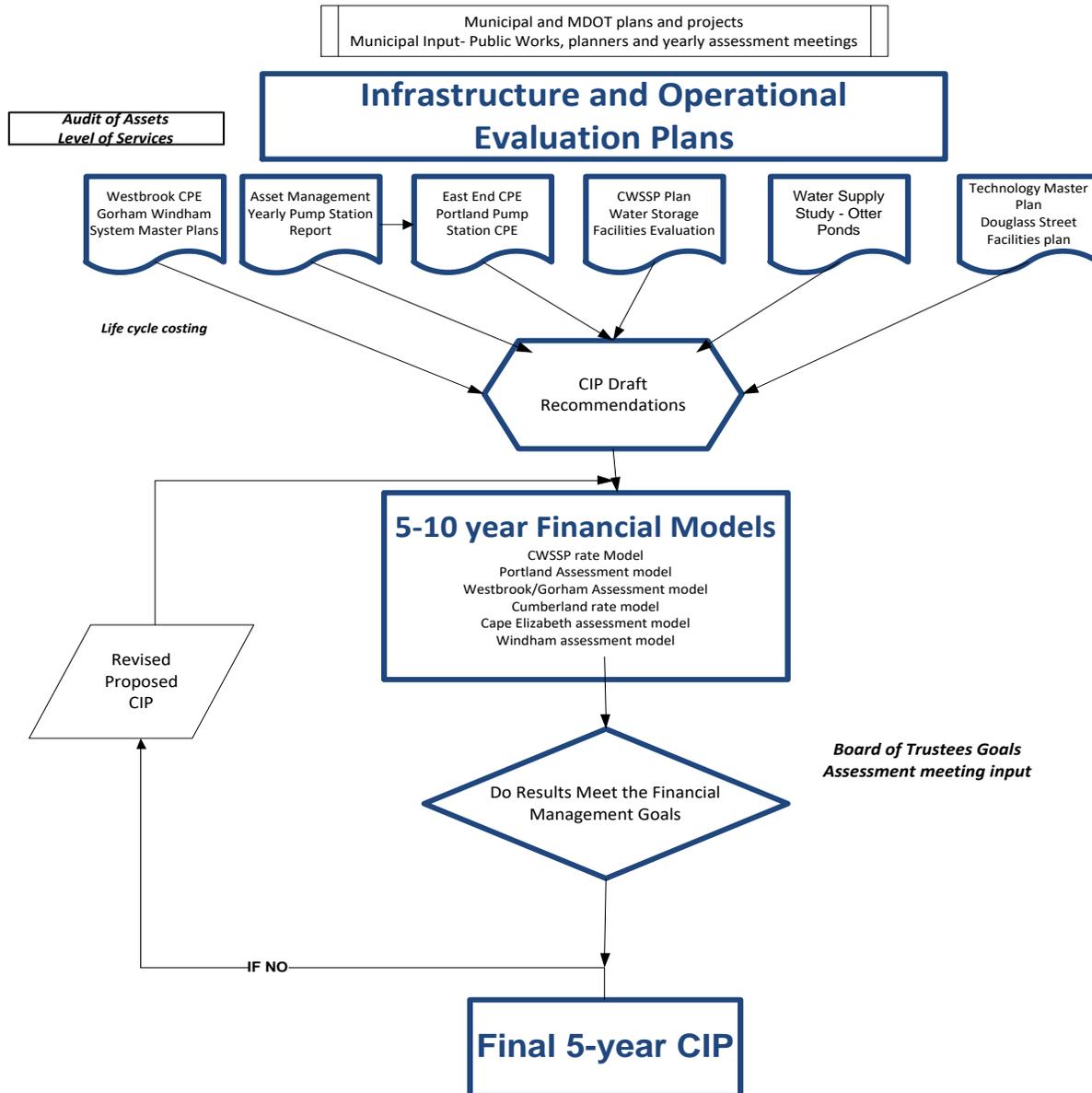
## Introduction

A five-year capital improvement plan is developed each year taking into consideration various factors including Infrastructure and Operational Evaluation Plans, Strategic/Tactical Goals and Benchmarks, Multi-year Financial Projections and Board Established Budget Guidelines (described in the Introduction Section). The plan is developed with much of our stakeholders' input, including input from customers, municipalities, regulators and staff. Staff recommends the Board of Trustees authorize the projects for the first year of the plan to be completed. Capital Expenditures are for a physical asset that exceeds \$10,000 and has a useful life of greater than 5 years or extends the useful life of an existing asset for more than 5 years.



\*CWSSP – Comprehensive Water System Strategic Plan

## Capital Improvement Program Process



## Infrastructure and Operational Evaluation Plans

The water and wastewater industry is an infrastructure-oriented industry. Approximately 90% of the District's total assets are infrastructure assets and capital-financing costs related to those assets are 30% of the annual budget. As the chart above indicates, a number of studies have been conducted to provide an assessment of those assets and is the basis for the capital improvement plan. Some of the studies are discussed in future pages by fund. Annually, internal work groups facilitated by an AMAP engineer review the above plans, new evaluations, current year operations and updated for new staff, municipal, community and Board requests. From the reviews, a draft 5-year project list is created. The draft list is reviewed by senior staff with special attention to staffing and financial capacity. At the November Board Workshop meeting, the Board and public are presented with the proposed capital improvement plans. Taking the feedback into consideration, the final 5-year plan is adopted at the November Board Business meeting.

**Program Summary and Board of Trustees Approval Order**

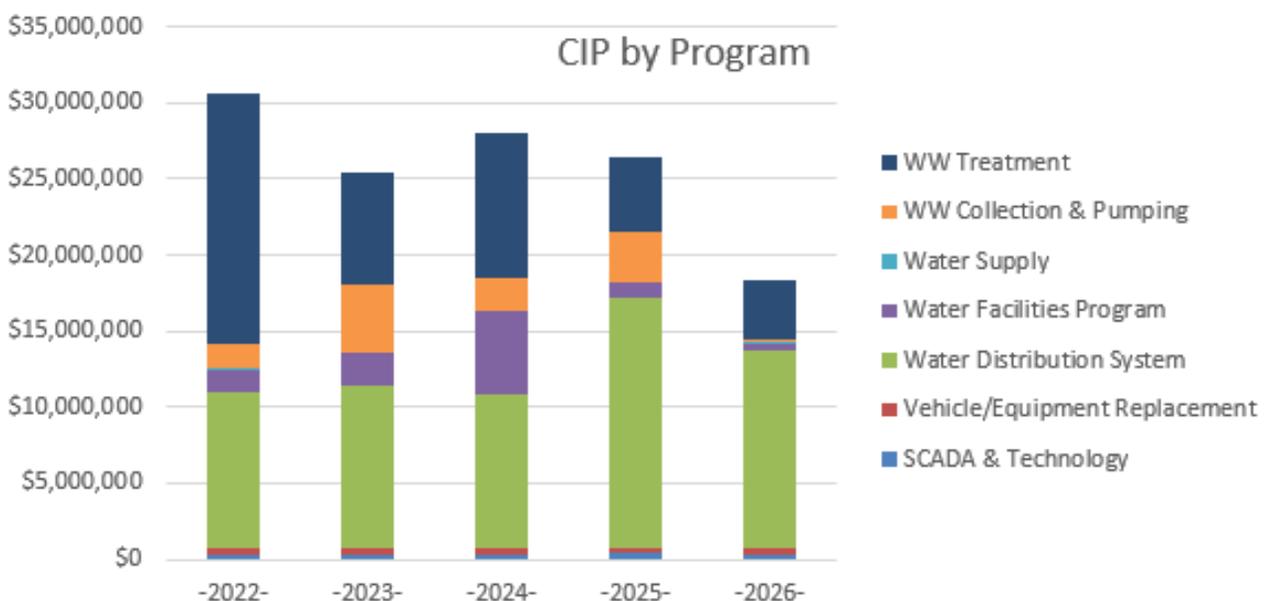
	-2022-	-2023-	-2024-	-2025-	-2026-
SCADA & Technology	\$300,000	\$300,000	\$300,000	\$375,000	\$300,000
Vehicle/Equipment Replacement	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
Water Distribution System	\$10,275,000	\$10,675,000	\$10,075,000	\$16,475,000	\$13,075,000
Water Facilities Program	\$1,520,000	\$2,240,000	\$5,575,000	\$930,000	\$450,000
Water Supply	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
WW Collection & Pumping	\$1,635,000	\$4,350,000	\$2,105,000	\$3,330,000	\$230,000
WW Treatment	\$16,500,000	\$7,415,000	\$9,590,000	\$4,880,000	\$3,920,000
<b>Grand Total</b>	<b>\$30,655,000</b>	<b>\$25,405,000</b>	<b>\$28,070,000</b>	<b>\$26,415,000</b>	<b>\$18,400,000</b>

**NOTE:** Projects that require "Special Approval" will be brought back to the Board of Trustees for specific authorization. In 2022 there is one project included in this category, the North Windham Wastewater System.

**Proposed Board Action:**

**ORDERED:** that the 2022-2026 Capital Improvement Plan is hereby adopted and the General Manager is authorized to solicit bids or proposals for the year 2022 projects; excepting CIP# 182, project 3241\North Windham Wastewater system and to authorize the General Manager to award contracts for approved projects to the lowest bidder if the bid is within the project budget.

**BE IT FURTHER ORDERED:** that the General Manager shall solicit bids or proposals and to partner with Municipalities, MDOT and Developers for the year 2022 for the replacement and extension of water mains, services, valves and hydrants as outlined in the Water Distribution Systems Program and to authorize the General Manager to award and enter into contracts if the bid or partnering proposals are within the overall program budget.



## Program Summary by Fund

Capital projects are recorded into the appropriate Water or Wastewater fund. The table summarizes the proposed 2022 Capital Improvement Plan by fund with a page reference where more details are provided on the projects. Gorham, Westbrook and Windham Wastewater system has a jointly used treatment plant located in Westbrook. Those costs are allocated between the municipalities – see the financial policies section for more information.

### Program Summary

	-2022-	Page Reference Introduction	Page Reference Project Listing
<b>Water</b>	<b>\$10,610,000</b>	<b>296</b>	<b>299</b>
SCADA & Technology	\$50,000		
Water Distribution System	\$9,875,000		
Water Facilities Program	\$660,000		
Water Supply	\$25,000		
<b>Cape Elizabeth</b>	<b>\$600,000</b>	<b>317</b>	<b>318</b>
WW Collection & Pumping	\$375,000		
WW Treatment	\$225,000		
<b>Cumberland</b>	<b>\$20,000</b>	<b>322</b>	<b>323</b>
WW Collection & Pumping	\$20,000		
<b>Gorham</b>	<b>\$20,000</b>	<b>326</b>	<b>329</b>
WW Collection & Pumping	\$20,000		
<b>Portland</b>	<b>\$7,235,000</b>	<b>340</b>	<b>342</b>
WW Collection & Pumping	\$1,110,000		
WW Treatment	\$6,125,000		
<b>Westbrook</b>	<b>\$20,000</b>	<b>326</b>	<b>329</b>
WW Collection & Pumping	\$20,000		
<b>Westbrook Joint</b>	<b>\$150,000</b>	<b>326</b>	<b>329</b>
WW Treatment	\$150,000		
<b>Windham</b>	<b>\$10,090,000</b>	<b>326</b>	<b>329</b>
WW Collection & Pumping	\$90,000		
WW Treatment	\$10,000,000		
<b>Water &amp; Wastewater</b>	<b>\$1,910,000</b>	<b>349</b>	<b>351</b>
SCADA & Technology	\$250,000		
Vehicle/Equipment Replacement	\$400,000		
Water Distribution System	\$400,000		
Water Facilities Program	\$860,000		
<b>Grand Total</b>	<b>\$30,655,000</b>		

## Financing Summary of 2022 Capital Improvement Plan

Capital projects are financed through the issuance of bonds – general market bonds or low-interest rate state revolving loan program bonds – or drawdowns from the renewal and replacement funds. The Capital Financing section contains more information.

	Bond	Bond SRF	Renewal and Replacment	Grand Total
Water	\$7,800,000		\$2,810,000	\$10,610,000
SCADA & Technology			\$50,000	\$50,000
Water Distribution System	\$7,800,000		\$2,075,000	\$9,875,000
Water Facilities Program			\$660,000	\$660,000
Water Supply			\$25,000	\$25,000
Cape Elizabeth	\$350,000	\$125,000	\$125,000	\$600,000
WW Collection & Pumping	\$350,000		\$25,000	\$375,000
WW Treatment		\$125,000	\$100,000	\$225,000
Cumberland			\$20,000	\$20,000
WW Collection & Pumping			\$20,000	\$20,000
Gorham			\$20,000	\$20,000
WW Collection & Pumping			\$20,000	\$20,000
Portland	\$910,000	\$5,100,000	\$1,225,000	\$7,235,000
WW Collection & Pumping	\$910,000		\$200,000	\$1,110,000
WW Treatment		\$5,100,000	\$1,025,000	\$6,125,000
Westbrook			\$20,000	\$20,000
WW Collection & Pumping			\$20,000	\$20,000
Westbrook Joint			\$150,000	\$150,000
WW Treatment			\$150,000	\$150,000
Windham	\$70,000	\$10,000,000	\$20,000	\$10,090,000
WW Collection & Pumping	\$70,000		\$20,000	\$90,000
WW Treatment		\$10,000,000		\$10,000,000
Water & Wastewater	\$500,000		\$1,410,000	\$1,910,000
SCADA & Technology			\$250,000	\$250,000
Vehicle/Equipment Replacement			\$400,000	\$400,000
Water Distribution System			\$400,000	\$400,000
Water Facilities Program	\$500,000		\$360,000	\$860,000
<b>Grand Total</b>	<b>\$9,630,000</b>	<b>\$15,225,000</b>	<b>\$5,800,000</b>	<b>\$30,655,000</b>

## Five-Year Capital Improvement Plan

In addition to planning the capital projects for the upcoming year, a five-year plan has been developed to assist us in managing our staff, communicating to our external partners to improve coordination and developing financial projections to set expectations of future water rate and wastewater assessments adjustments.

The table below summarizes the planned capital projects in the upcoming year. Additional details on each program are provided on the following pages.

	-2022-	-2023-	-2024-	-2025-	-2026-
Water	\$10,610,000	\$12,040,000	\$13,900,000	\$16,805,000	\$11,300,000
SCADA & Technology	\$50,000	\$50,000	\$50,000	\$75,000	\$50,000
Water Distribution System	\$9,875,000	\$10,275,000	\$9,675,000	\$16,075,000	\$11,075,000
Water Facilities Program	\$660,000	\$1,690,000	\$4,150,000	\$630,000	\$150,000
Water Supply	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Cape Elizabeth	\$600,000	\$2,235,000	\$50,000	\$100,000	\$275,000
WW Collection & Pumping	\$375,000	\$360,000	\$25,000		
WW Treatment	\$225,000	\$1,875,000	\$25,000	\$100,000	\$275,000
Cumberland	\$20,000	\$2,540,000	\$20,000	\$20,000	\$20,000
WW Collection & Pumping	\$20,000	\$2,540,000	\$20,000	\$20,000	\$20,000
Gorham	\$20,000	\$350,000	\$20,000	\$20,000	\$20,000
WW Collection & Pumping	\$20,000	\$350,000	\$20,000	\$20,000	\$20,000
Portland	\$7,235,000	\$6,035,000	\$10,365,000	\$4,155,000	\$1,670,000
SCADA & Technology				\$25,000	
WW Collection & Pumping	\$1,110,000	\$560,000	\$2,000,000	\$50,000	\$150,000
WW Treatment	\$6,125,000	\$5,475,000	\$8,365,000	\$4,080,000	\$1,520,000
Westbrook	\$20,000	\$20,000	\$20,000	\$3,220,000	\$20,000
WW Collection & Pumping	\$20,000	\$20,000	\$20,000	\$3,220,000	\$20,000
Westbrook Joint	\$150,000	\$65,000	\$1,200,000	\$725,000	\$2,125,000
SCADA & Technology				\$25,000	
WW Treatment	\$150,000	\$65,000	\$1,200,000	\$700,000	\$2,125,000
Windham	\$10,090,000	\$520,000	\$20,000	\$20,000	\$20,000
WW Collection & Pumping	\$90,000	\$520,000	\$20,000	\$20,000	\$20,000
WW Treatment	\$10,000,000				
Water & Wastewater	\$1,910,000	\$1,600,000	\$2,475,000	\$1,350,000	\$2,950,000
SCADA & Technology	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
Vehicle/Equipment Replacement	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
Water Distribution System	\$400,000	\$400,000	\$400,000	\$400,000	\$2,000,000
Water Facilities Program	\$860,000	\$550,000	\$1,425,000	\$300,000	\$300,000
<b>Grand Total</b>	<b>\$30,655,000</b>	<b>\$25,405,000</b>	<b>\$28,070,000</b>	<b>\$26,415,000</b>	<b>\$18,400,000</b>

## Significant Non-Recurring Capital Projects

The water and wastewater industry is a relatively capital intensive organization with over \$550 million of assets, which is over 90% of the District's total assets. Approximately \$129 million of capital additions and replacements are planned over the next five years with many projects being the routine replacement of aging infrastructure such as water mains, hydrants and plant equipment. The table below lists several of the larger projects included in the 5-year plan.

	-2022-	-2023-	-2024-	-2025-	-2026-
▫ Water		\$240,000	\$4,100,000	\$6,000,000	
18\3007\SLWTF Intake Screening Phase 1		\$240,000	\$3,500,000		
262\3069\SLWTF - Emergency Storage/Transmission- Design			\$600,000		
262\3070\SLWTF - Emergency Storage/Trans - Construction				\$6,000,000	
▫ Water & Wastewater					\$1,600,000
63\3046\Meter Replacement and Leak Detection					\$1,600,000
▫ Westbrook				\$3,200,000	
29\3231\PEND - CSO Storage Facility				\$3,200,000	
▫ Windham	\$10,000,000				
182\3241\North Windham WWTF	\$10,000,000				
<b>Grand Total</b>	<b>\$10,000,000</b>	<b>\$240,000</b>	<b>\$4,100,000</b>	<b>\$9,200,000</b>	<b>\$1,600,000</b>

SLWTF Intake Screening: Raw water screening for SLWTF was evaluated as part of the Comprehensive Water System Strategic Plan. The current screens at the intake buildings are 70 years old and are in need of replacement. The operating impact of the project is \$300,000 starting in 2025 (all debt service).

SLWTF Emergency Storage: Construct a 7.0 Million Gallon Prestressed Concrete Reservoir near the Sebago Lake Water Treatment Facility (SLWTF). The purpose is to provide additional storage for partial redundancy of the SLWTF so that it can be shut down for longer periods of time and improve water quality by relying less on system storage. The operating impact of the project is \$528,000 starting in 2027 (all debt service).

Meter Replacement: In 2026, a new meter and meter reading system will begin to be changed. The project may take several years with total costs up to \$15 million. The operating impact of the \$15 million project is \$1.2 million starting in 2030 (all debt service).

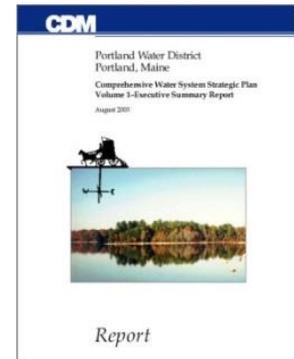
Westbrook CSO Storage Facility: To comply with combined sewer overflow federal regulation a stormwater storage may need to be built. The operating impact of the project is \$271,000 starting in 2027 (all debt service).

North Windham WWTF: The Town of Windham has requested the District to explore constructing a new treatment and collection system serving the North Windham area. Preliminary engineering is being conducted and should be completed by the end of 2021. For forecast purposes, a \$10 million project budget was assumed but it could be significantly higher. The operating impact of the project is \$862,672 starting in 2025 (\$316,000 operating and \$546,672 debt service).

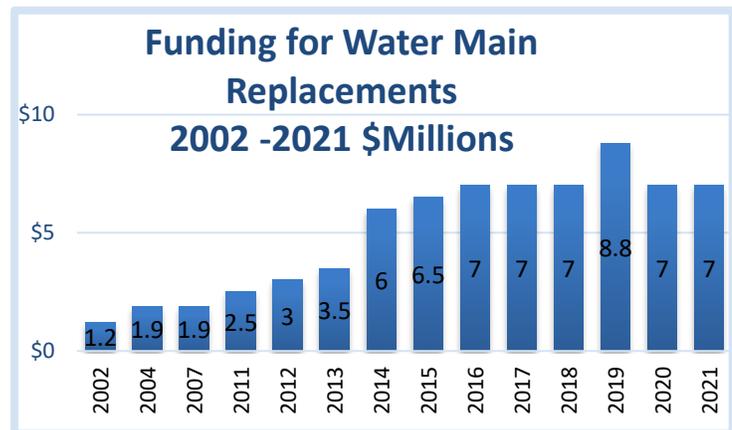
## Water Fund

### Comprehensive Water System Strategic Plan (CWSSP) - March 2003

Camp Dresser & McKee, engineering consultants, completed the master plan of the distribution system in March of 2003. The plan was prepared to guide the development, operations and financing of the water system through year 2022. The first 7- year planning cycle (priority - 1 projects 2003-2010) included an investment increase in the water main renewal program (see chart below). Along with the increase in water main renewals, the District also undertook the replacement of our existing water meters with new radio read meters. The meter project was completed in 2009 as recommended in the plan. An update to the CWSSP plan (Comprehensive Infrastructure Asset Management Plan) was funded in 2021 CIP 3/ 3071 and is expected to be completed by end 2023.



CWSSP also recommended removal or rehabilitation of existing water storage tanks. The District has removed three tanks from the system – Munjoy Hill reservoir, Shore Acres and Oak Hill. In 2008, the District rehabilitated 2-tanks, Steep Falls and Gowen. In 2009, the Standish Tank was rehabilitated and a bulk mixer added. In 2012, modifications were made to the concrete tanks to comply with OSHA fall protection standards.



In the plan, system deficiencies and recommended actions were identified. The most significant project identified from the priority - 1 projects was inadequacies associated with service from the Elevation 407 zone. CWSSP recommended the combining of the 407-north zone with the south zone. Many projects have been completed to that end. This included transmission main piping in the MDOT Rte. 202/Presumpscot River Bridge project, installation of 8,000 feet of trunk main on Fort Hill road along with several upgrades in the Little Falls area of Gorham and Windham as part of the Little Falls Conveyance Project. In 2008, 4,000 feet of transmission main was extended to the new pump station location on Ward's Hill road. In 2009, the transmission main was extended from the end of the Fort Hill main along Huston Road to the proposed pump station location. In 2016 the District completed the transmission portion of the north 407 zone by extending 24" main from the pump station site 6,500 feet down Dyer Road and Huston Road to Rte. 202 connecting into the 2008 upgrades. This project provided an increase in pressure to approximately 150 customers that had substandard pressure and increased fire protection to the area.

A hydraulic analysis of the combined system and final design of the new 407 zone pump station (Wards Hill) was completed in 2017. The pump station construction started in 2017 (CIP #307) and was on-line in September 2018. Land acquisition and design for a new storage facility to replace the Windham Center Tank is underway and construction of the new tank was funded in the 2019 CIP (CIP #307) with an expected construction start in the Spring of 2022. In Windham the Depot Street water transmission main connector (2020 CIP 307/3066), to extend the 407 zone transmission system, was completed in the summer of 2021. Proposed in 2022 CIP 307/3067 to continue to extend the 407 transmission system on Main Street from the Depot Street project to River Road.

## Water Fund (continued)

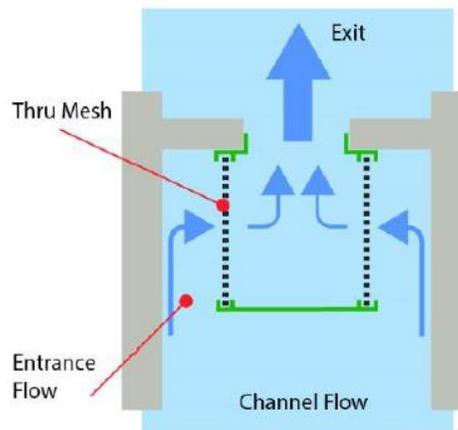
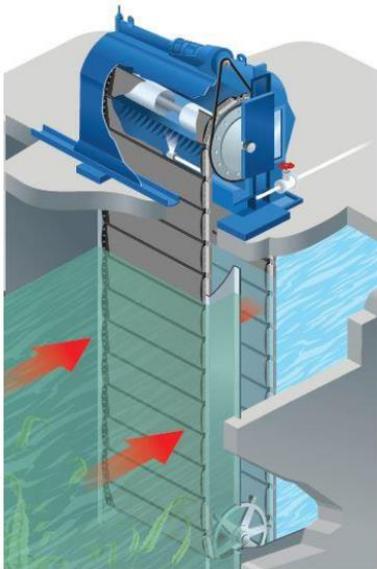
### Greater Portland Water System – Water Treatment/Alternate Source – November 2008

Camp Dresser & McKee completed a study of the Sebago Lake Water Treatment Facility (SLWTF) in November of 2008. The primary focus of the study was to evaluate design alternatives for the ultraviolet disinfection process proposed to meet upcoming disinfection requirements and evaluate replacement of the existing 20-year old Ozone equipment. This study also reviewed raw water screening alternatives to replace the existing screening equipment. The third area looked at by this study was to evaluate the potential to connect the well supply that was being investigated in the Otter Ponds Aquifer area to the Sebago Lake Water Treatment Facility (SLWTF) as a backup or supplemental supply.

The report recommended conducting a pilot study of ultraviolet disinfection to evaluate the potential of fouling on the ultraviolet disinfection equipment and to help guide the choice of location and technology. The pilot work was completed in 2011. Final design of the UV facility and Ozone replacement equipment commenced in 2011 and was completed in May 2012. Construction of the \$12 million project was completed and the new system was on-line in April of 2014.

The final hydrogeological study of the Otter Ponds Aquifer well was completed. A production well was developed, tested and is licensed for an emergency supply that could supply Standish, Gorham and Windham if needed. Raw water screening for SLWTF was evaluated as part of this project. The current screens at the intake buildings are 70 years old and are in need of replacement. Preliminary design was completed in 2019 with final design planned for 2023 and construction in 2024.

### Proposed 2023 -2024 CIP #18, Project 3007 – Replace Mechanical Screens



Typical Flow Path through Dual-Flow Traveling Water Screens

1: Image of a Typical Thru-Flow Traveling Water Screen

## Water Fund (continued)

### Southern Maine Regional Water Council – Water Master Plan Study – October 2008 (Updated 2016)

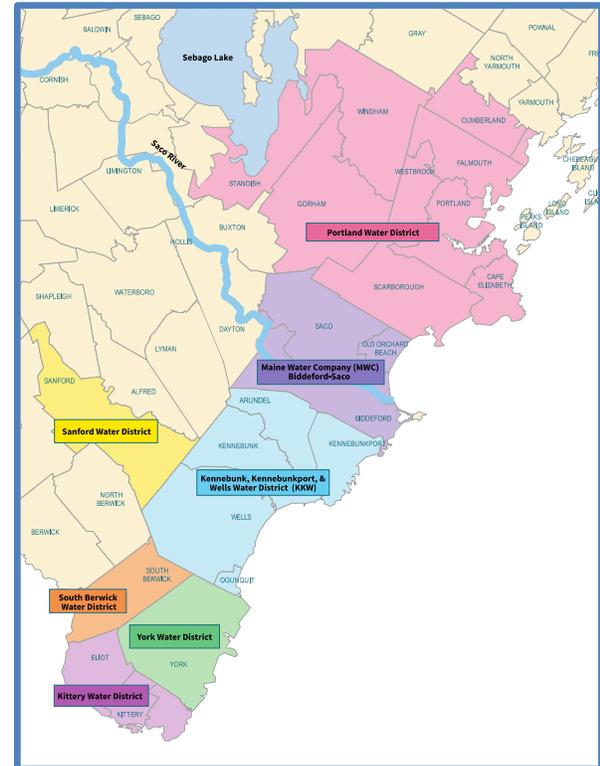


The Southern Maine Regional Water Council, made up of the 7 major water utilities of Cumberland and York County, completed a master plan in October of 2008. This document provides the southern Maine region with a planning tool for regional solutions to sustainable water resources and infrastructure for the foreseeable future. This study attained the following goals:

- Identified existing and potential sources of supply in the region and established the present and projected water needs in the region. Also, identified the limitations and risks of the existing and future supplies.
- Explored the logistics, benefits and impediments of creating an integrated, regional water supply system.
- Detailed the hydraulic considerations and infrastructure required to supply water over a large geographical area and evaluated potential water quality issues associated with blending various supplies and considered existing and future interconnections between systems.
- Developed short-term strategies for mutual-aid and sharing of resources between member utilities and developed an action plan to protect identified resources for future generations.
- Developed an integrated water supply plan for the entire region.
- Considered potential governance models for a regional supply organization.

The Council has continued to collaborate on regional utility planning and purchasing efforts. In 2016, the Council completed an update to the 2008 Regional Plan. The updated plan created a regional hydraulic model, explored in detail individual interconnections between all the utilities, identified and reviewed the following:

- existing capabilities for each system
- hydraulic limitations
- available water from neighboring systems
- water quality compatibility issues



## Water Fund (continued)

### Program Summary

	-2022-	-2023-	-2024-	-2025-	-2026-
SCADA & Technology	\$50,000	\$50,000	\$50,000	\$75,000	\$50,000
Water Distribution System	\$9,875,000	\$10,275,000	\$9,675,000	\$16,075,000	\$11,075,000
Water Facilities Program	\$660,000	\$1,690,000	\$4,150,000	\$630,000	\$150,000
Water Supply	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
<b>Grand Total</b>	<b>\$10,610,000</b>	<b>\$12,040,000</b>	<b>\$13,900,000</b>	<b>\$16,805,000</b>	<b>\$11,300,000</b>

### Projects by Program

	-2022-	-2023-	-2024-	-2025-	-2026-
<b>SCADA &amp; Technology</b>	\$50,000	\$50,000	\$50,000	\$75,000	\$50,000
110\3058\Miscellaneous Control Project Upgrades	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
110\3061\SLWTF SCADA PC Replacement Project				\$25,000	
<b>Water Distribution System</b>	\$9,875,000	\$10,275,000	\$9,675,000	\$16,075,000	\$11,075,000
262\3069\SLWTF - Emergency Storage/Transmission- Design			\$600,000		
262\3070\SLWTF - Emergency Storage/Trans - Construction				\$6,000,000	
307\3067\407 Zone Reliability Improvements	\$1,800,000				
307\3068\407 Zone Reliability Improvements		\$2,200,000			
408\3092\Water System Redundancy (looping), Upsizing	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
43\3121\WMR- Various Main Replacements	\$7,000,000	\$7,000,000	\$8,000,000	\$9,000,000	\$10,000,000
53\3087\Water Valve Replacement	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
56\3077\Water Main Replacement - Seasonal Mains	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
61\3082\Water Services - Renew Domestic and Fire	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000
65\3072\Water Hydrant Replacement	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
<b>Water Facilities Program</b>	\$660,000	\$1,690,000	\$4,150,000	\$630,000	\$150,000
122\3008\Steep Falls Upgrade - Phase 1	\$300,000				
122\3032\Water Facilities R&R	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
122\3210\Chemical Storage Facilities Upgrades		\$50,000	\$500,000		
122\3211\Windham Pump Upgrades	\$100,000	\$650,000			
122\3240\SLWTF Raw Water Pump #4 Rebuild				\$180,000	
122\3245\Throttling Valve Rehabilitation	\$10,000	\$150,000			
122\3246\Intake Structures Condition Assessment	\$100,000				
122\3252\Fuel Storage Tank Upgrade				\$300,000	
18\3007\SLWTF Intake Screening Phase 1		\$240,000	\$3,500,000		
203\3102\Water Storage Facility Maintenance & Upgrade	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
203\3104\Water Tank Maintenance- Gorham Tank Rehab		\$450,000			
<b>Water Supply</b>	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
46\3097\Water System Security Improvements	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
<b>Grand Total</b>	<b>\$10,610,000</b>	<b>\$12,040,000</b>	<b>\$13,900,000</b>	<b>\$16,805,000</b>	<b>\$11,300,000</b>

### Financing Summary

	-2022-	-2023-	-2024-	-2025-	-2026-
Bond	\$7,800,000	\$8,440,000	\$10,500,000	\$14,000,000	\$9,000,000
Renewal and Replacment	\$2,810,000	\$3,600,000	\$3,400,000	\$2,805,000	\$2,300,000
<b>Grand Total</b>	<b>\$10,610,000</b>	<b>\$12,040,000</b>	<b>\$13,900,000</b>	<b>\$16,805,000</b>	<b>\$11,300,000</b>

## Subprogram # 3 Comprehensive Infrastructure Asset Management Plan

(Updated CWSSP Plan)

**Division:** Allocation

**Manager:** Crovo, Chris

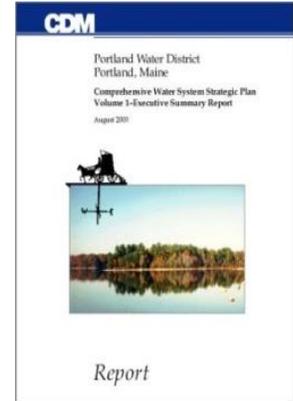
**Funding:** Water Master Plan Reserve

**Priority:**

This 2021 Planning Project is expected to kickoff 2<sup>nd</sup> quarter of 2022

### Description:

The District completed a Comprehensive Water System Strategic Plan (CWSSP) in 2003. This plan has served as the District's water system master plan for the past 16 years and also served as a driver to develop an Asset Management approach to infrastructure maintenance and replacement of all the District's assets. This project will provide an update to the existing CWSSP plan but will also build out Asset Management Plans for all the District's water and wastewater critical assets.



### Justification / Impact:

Since the completion of the CWSSP plan in 2003 the District has completed the following;

- Completed an Asset Inventory of our Infrastructure Systems
- Fully developed and integrated our CMMS and GIS system (Asset Information Management System – AIM)
- Updated portions of the Hydraulic Model for the Water system
- Completed many of the recommended capital projects
- Maintained a financial model for water system and wastewater communities
- Conducted many evaluations and condition assessments of many critical assets

The District is preparing to take the next step in Asset Management and would be seeking consulting assistance to complete the following;

- Determine assets that are critical to sustained performance and develop asset management plans for each asset class
- Development of condition-based monitoring plans and deployment
- Determine long-term optimized financial strategy

This effort would be used to update and create a single document outlining the status of our infrastructure and a multi-year plan on projects to be completed in the coming decade.

### Budget Summary:

PROJECTS	-2021-
Reserves	\$750,000
3/3071 Comprehensive Infrastructure AMP	\$750,000
<b>Grand Total</b>	<b>\$750,000</b>

**Previous Years on CIP:** 2019

**Related Projects:**

**Procurement Issues:** Engineering consulting procurement – purchasing policy

**Subprogram # 110**

**SCADA/Process Control - Water**

**Division:** Water - General

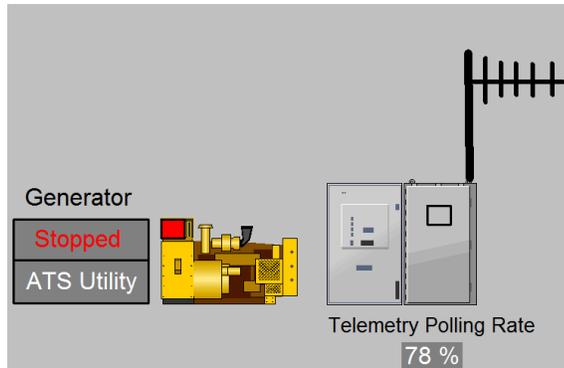
**Manager:** Pellerin, Greg

**Funding:** R & R – Water-Div. 20

**Priority:** Upgrade obsolete facility

**Description:**

The program supports 30 water sites across the District in upgrading and replacing the existing Supervisory Control and Data Acquisition (SCADA) equipment. The work needed is replacement of hardware and software to be compatible to the District SCADA standards and provide for increased automation of the water systems and treatment. Programmable Logic Controllers (PLC) have been replaced across the District to meet the new standards and remove outdated, non-maintainable equipment.



**Justification / Impact:**

The benefit of this program is to increase the automation and reduce the staff hours needed to perform routine activities for the systems and treatment plants across the District.

**History:**

The District started changing out the system in 2003 by replacing the existing 20 year-old system and installing new SCADA equipment where it did not exist. Most systems have been retrofitted or replaced but more automation of these systems will continue.

**Origin of the Subprogram:**

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Renewal and Replacement	\$50,000	\$50,000	\$50,000	\$75,000	\$50,000
SCADA & Technology	\$50,000	\$50,000	\$50,000	\$75,000	\$50,000
110\3058\Miscellaneous Control Project Upgrades	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
110\3061\SLWTF SCADA PC Replacement Project				\$25,000	
<b>Grand Total</b>	<b>\$50,000</b>	<b>\$50,000</b>	<b>\$50,000</b>	<b>\$75,000</b>	<b>\$50,000</b>

**Previous Years on CIP:**

2003

**Related Projects:**

Subprogram #177

## **Subprogram # 262 SLWTF - Emergency Storage/60" Transmission Ph. 1**

**Division:** Water - General

**Manager:** Johnson, Gordon

**Funding:** Bonds - Water - Div. 20

**Priority:** Customer driven

**Description:**

Construct a 7.0 Million Gallon Prestressed Concrete Reservoir near the Sebago Lake Water Treatment Facility (SLWTF).

**Justification / Impact:**

The purpose is to provide additional storage for partial redundancy of the SLWTF so that it can be shut down for longer periods of time and improve water quality by relying less on system storage.

**History:**

This project was conceived as part of the Comprehensive Water System Strategic Plan, as a future need and will be assessed further during the future "Comprehensive Asset Management Strategic Plan." – Subprogram # 3

**Origin of the Subprogram:**

This is a CWSSP recommendation to improve water quality and backup storage.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Bond				\$6,000,000	
Water Distribution System				\$6,000,000	
262\3070\SLWTF - Emergency Storage/Trans - Construction				\$6,000,000	
Renewal and Replacement			\$600,000		
Water Distribution System			\$600,000		
262\3069\SLWTF - Emergency Storage/Trans- Design			\$600,000		
<b>Grand Total</b>			<b>\$600,000</b>	<b>\$6,000,000</b>	

**Previous Years on CIP:**

2004

**Related Projects:**

CWSSP #267-1150, CAMSP #3-3071

**Procurement Issues:**

Standard consulting and/or contractor retention procedures.

**Subprogram # 307 Gorham/Windham 407 Zone Improvements**

**Division:** Water - General

**Manager:** Johnson, Gordon

**Funding:** Bonds – Water - Div. 20

**Priority:** Upgrade obsolete facility

**Description:**

Phased design and construction of transmission mains, pumps & water tank for the integration of the 407 Zones (Gorham & Windham).

**Justification / Impact:**

The growth in these communities requires increased capacity. There are also specific service deficiencies and water quality issues that need to be addressed in the 407 Zones.

**History:**

The projects listed below were anticipated by the 1989 Master Plan. Further analysis and identification was undertaken as part of the 2003 CWSSP study.

**Origin of the Subprogram:**

Projects identified and proposed phasing outlined in Comprehensive Water System Strategic Plan.



2019 – Subprogram 307, project #3004 Water Storage for 407 zone north. This project will replace an old undersized 1950 Elevated Tank (left) with new ground storage tank (right) Currently under design – Construction to start 2022

**Budget Summary:**

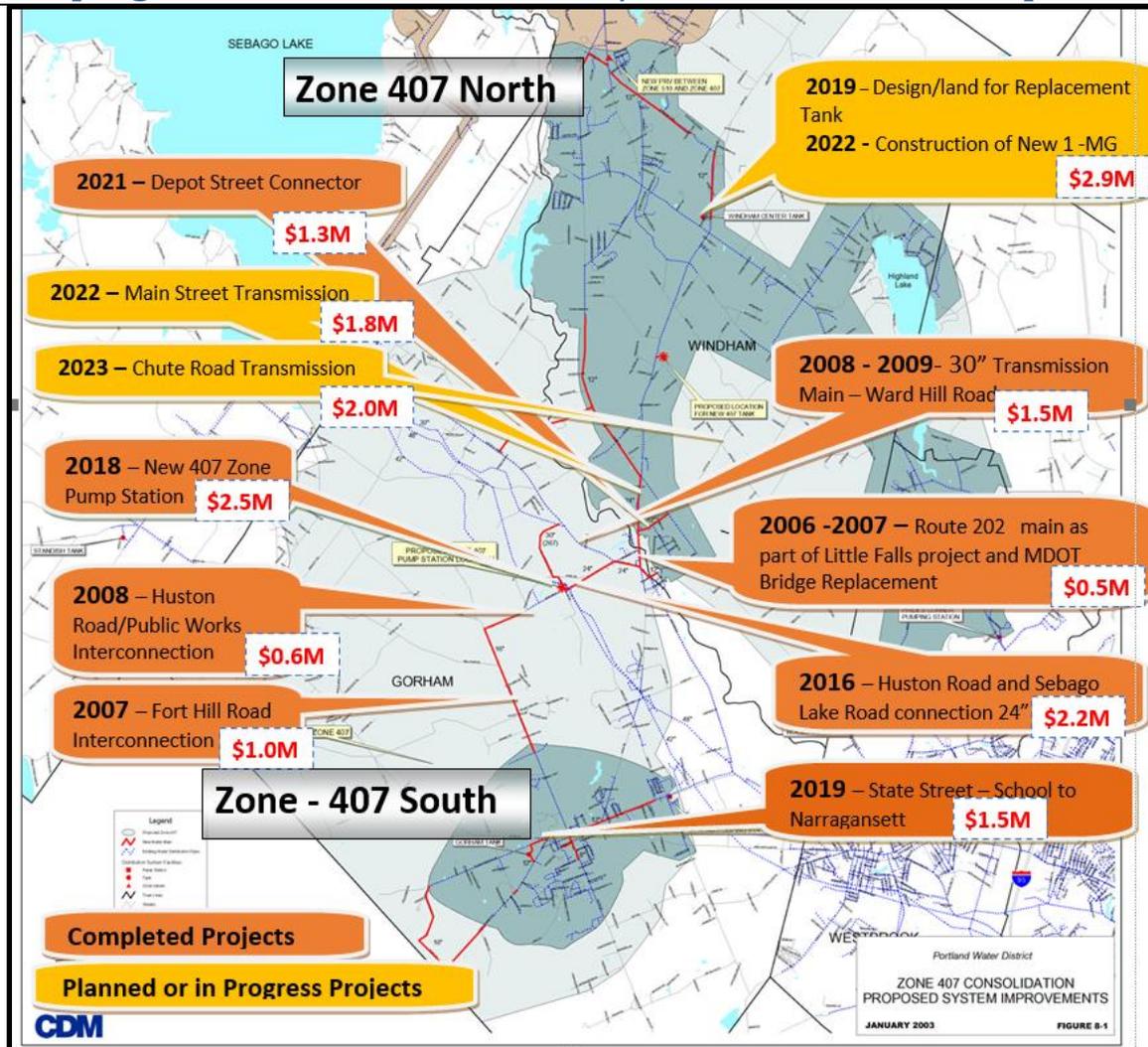
PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Bond	\$1,800,000	\$2,200,000			
Water Distribution System	\$1,800,000	\$2,200,000			
307\3067\407 Zone Reliability Improvements	\$1,800,000				
307\3068\407 Zone Reliability Improvements		\$2,200,000			
<b>Grand Total</b>	<b>\$1,800,000</b>	<b>\$2,200,000</b>			

Previous Years on CIP:

2000

## Subprogram # 307

## Gorham/Windham 407 Zone Improvements



## Public Health, System Reliability and Public Safety Benefits

- Replacement of two obsolete Pumping Stations (Gorham- 1898, Prides Corner – 1950) with state of the art single new pump station (Wards Hill)
- Elimination of pressure limitations to approximately 150 customers
- Replacement of old 1950 undersized 0.2 MG Windham Center elevated tank with new 1.0 MG ground storage tank
- Improved water quality and water age in entire combined system
- Fire Flow improvements to Gorham Village and Windham

## **Subprogram # 408**                      **Water System Redundancy (Looping) and Upsizing**

**Division:** Water - General  
**Funding:** R & R - Water

**Manager:** Johnson, Gordon  
**Priority:** Routine replacement

**Description:**

Identify and evaluate areas requiring system redundancy. Design and schedule the installation of looping these systems and eliminating critical dead end areas in the Distribution System

**Justification / Impact:**

The justification, impact, and benefit of this program is a priority system based on, water quality (eliminating dead ends), water availability ( Increased demands through growth and fire flow demands), and improving general District System and Partnering Water System redundancy.

**History:**

History is based on decreases in fire flows and increased usage demands noted when conducting activities in these areas such as flushing and temporary shutdown of present supply mains.

**Origin of the Subprogram:**

The current projects listed are based on increased demand and multiple system redundancy.

**Budget Summary:**

<b>PROJECTS</b>	<b>-2022-</b>	<b>-2023-</b>	<b>-2024-</b>	<b>-2025-</b>	<b>-2026-</b>
Renewal and Replacement	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
Water Distribution System	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
408\3092\Water System Redundancy (looping),					
Upsizing	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
<b>Grand Total</b>	<b>\$50,000</b>	<b>\$50,000</b>	<b>\$50,000</b>	<b>\$50,000</b>	<b>\$50,000</b>

**Previous Years on CIP:**

none

**Related Projects:**

43, 111

**Procurement Issues:**

District labor & equipment or low bid contract installation

## Subprogram # 43 Water Main Replacement

**Division:** Water - General

**Manager:** Johnson, Gordon

**Funding:** Bonds and R&R - Water- Div. 20

**Priority:** Routine replacement

### Description:

Renew, replace, upgrade and loop cast iron water mains using materials and sizing for current and future conditions. Approximately 20,000 feet is scheduled for yearly replacement.

### Level of Service – Reliability Performance

*Water main break frequency - 10 breaks per 100 miles*

### Justification / Impact:

This is a cost saving and water quality improvement process. Mains selected for replacement use the same priority system as the Galvanized Main Renewal Program: water quality complaints, leak frequency data, and municipal/state reconstruction projects.

### History:

Cast iron mains in sizes 2 inches and above had been a standard from the late 1800s until the introduction of Ductile Iron pipe in the late 1960s and early 1970s and PVC and HDPE pipe in the 1980s. The rigidity and lack of flexibility of cast iron has been attributed to failures such as frost movement, cross trenches, water hammers, contractor damages, as well as normal deterioration and corrosion through age. A percentage of these mains are unlined causing iron build up resulting in restricted flow and dirty water complaints. The District has a long term program to upgrade these mains.

### Origin of the Subprogram:

The current list of projects is determined on the basis of water quality complaints, leak frequency data, age of main, and municipal/state reconstruction projects.

### Budget Summary:

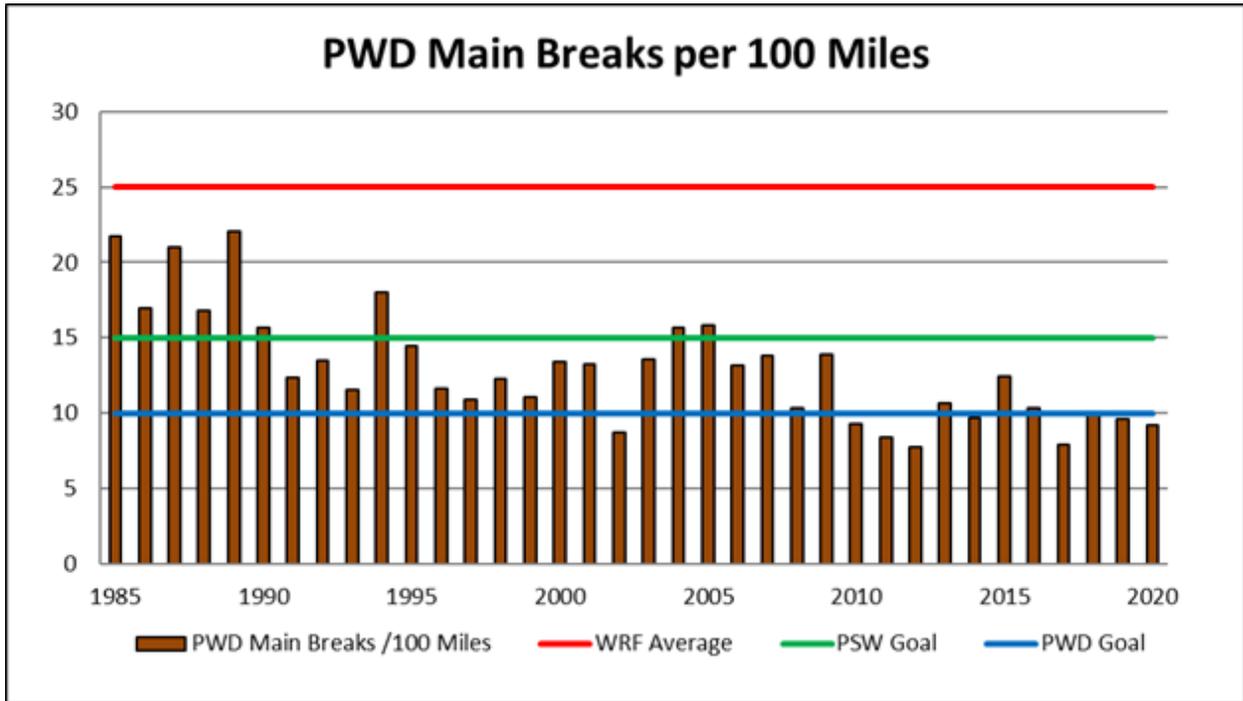
PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Bond	\$6,000,000	\$6,000,000	\$7,000,000	\$8,000,000	\$9,000,000
Water Distribution System	\$6,000,000	\$6,000,000	\$7,000,000	\$8,000,000	\$9,000,000
43\3121\WMR- Various Mains Replace	\$6,000,000	\$6,000,000	\$7,000,000	\$8,000,000	\$9,000,000
Renewal and Replacement	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
Water Distribution System	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
43\3121\WMR- Various Mains Replace	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000
<b>Grand Total</b>	<b>\$7,000,000</b>	<b>\$7,000,000</b>	<b>\$8,000,000</b>	<b>\$9,000,000</b>	<b>\$10,000,000</b>

### Anticipated water main replacement projects for 2022

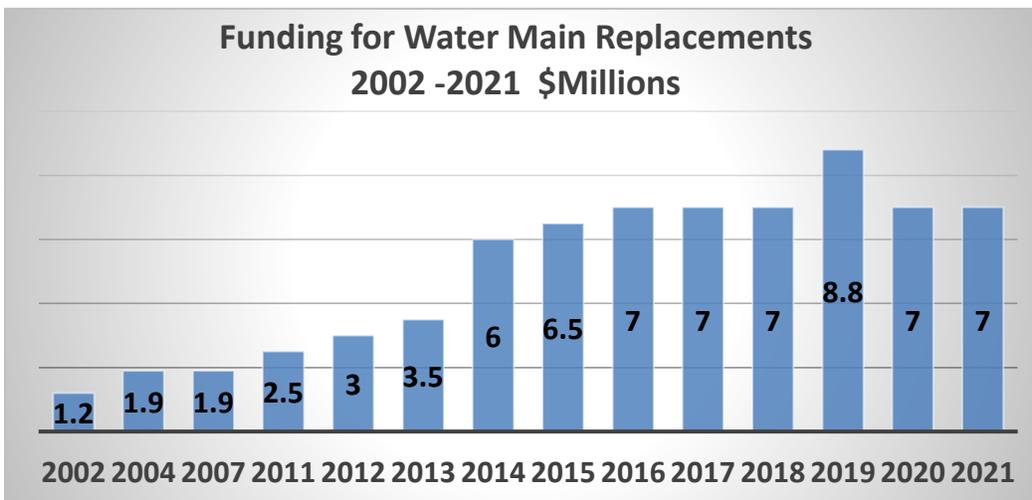
WMR Projects - 2022	city	CIP Budget	Pipe Footage		Contracting Partnering Agency
		Estimated	Installed	Price/Ft	
Presumscot Street - Culvert Project	PO	\$ 100,000	250	\$ 400	PO -PW
Vaughn Street, Western Prom	PO	\$ 400,000	1000	\$ 400	PO CSO
Pearl Street, Commercial to Congress	PO	\$ 800,000	2000	\$ 400	PO CSO
Great Diamond to Little Diamond Sub-main replacements	PO	\$ 800,000	2000	\$ 400	Leaks
Holm Ave/ Barron Center	PO	\$ 640,000	1600	\$ 400	
Hermit Thrush,	CE	\$ 1,000,000	2500	\$ 400	PO CSO
Kettle Cove Road	CE	\$ 810,000	2100	\$ 386	CE - PW
Duck Pond Road - North entrance at 302 -2200 ft to the east	WE	\$ 900,000	2100	\$ 429	Leaks
High Street, Depot to Holly Street	WI	\$ 400,000	1000	\$ 400	WI - PW
<b>Water Main Replacement Projects</b>		<b>\$ 1,150,000</b>	<b>3100</b>	<b>\$ 371</b>	

Level of Service – Reliability Performance

Water main break frequency - 10 breaks per 100 miles



WRF = Water Research Foundation, PSW = Partnership for Safe Water



## **Subprogram # 53** Water Valve Replacement

**Division:** Water - General

**Manager:** Wallace, Jim

**Funding:** R & R - Water - Div. 20

**Priority:** Routine replacement

**Description:**

Replacement of deteriorated valves in the distribution system.

**Justification / Impact:**

Replacement is determined and prioritized through data and workorders generated from our Distribution Valve Operation Program, Inspectors Valve Operation Reports, Leak Reports, Flushing Program Data, and the Distribution Maintenance Crews.

**History:**

Internal inspection of valves replaced has shown decay of the discs and spreaders that render the valves non-operational and ineffective in isolating a section of the distribution system. External inspection has shown corrosion of nuts and bolts, corroded operating nuts, and bent operating stems. Repacking and rebolting these valves has only provided a costly and temporary solution to the external portion of the valve. Replacement insures the valve will be up to standard and operational for many years to come with no required maintenance.



**Origin of the Subprogram:**

Our target is to replace 50 ( + or - ) valves per year.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Renewal and Replacement	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
Water Distribution System	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
53\3087\Water Valve Replacement	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
<b>Grand Total</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>

**Previous Years on CIP:**

All

**Related Projects:**

**Procurement Issues:**

Work is to be performed using District Staff, equipment, and materials.

**Subprogram # 56** **Water Main Renewal - Seasonal Mains**

**Division:** Water - General  
**Funding:** R & R – Water- Div. 20

**Manager:** Wallace, Jim  
**Priority:** Routine replacement

**Description:**

This portion of the Water Main Renewal Program is to replace depreciated Seasonal Surface mains with new Seasonal Surface mains. Approximately 2000 to 3000 feet of main are included annually in this general program.

**Justification / Impact:**

This program improves customer satisfaction with improved water flow and quality and reduces maintenance costs via new leak free materials.

**History:**

This is a long term program in which old galvanized seasonal water mains with capacity, water quality or maintenance problems are replaced on an as-needed basis.

**Origin of the Subprogram:**

Projects are initiated by monitoring customer complaints and leakage problems. When consistent problems are identified, the main is scheduled for replacement.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Renewal and Replacement	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Water Distribution System	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
56\3077\Water Main Replacement - Seasonal Mains	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
<b>Grand Total</b>	<b>\$25,000</b>	<b>\$25,000</b>	<b>\$25,000</b>	<b>\$25,000</b>	<b>\$25,000</b>

**Previous Years on CIP:** All  
**Related Projects:** #43



2019 CIP #43, Water Main Replacement project – Bedford Street, Portland

**Subprogram # 61 Water Services - Renew Domestic & Fire**

**Division:** Water - General  
**Funding:** R & R – Water- Div. 20

**Manager:** Wallace, Jim  
**Priority:** Routine replacement

**Description:**

Replace obsolete galvanized, cast iron, cement lined iron, and 50 year old copper services with current materials and sized for future conditions.

**Justification / Impact:**

Replacement is determined and prioritized by water quality concerns, leaking conditions, street reconditioning, distribution main replacement, and area/report analysis through District Data. This Project is also coordinated with the various municipal paving projects in order to minimize future inflated municipal street opening costs and repairs.

**History:**

Galvanized and cast iron were common materials used in the installation of services from the early 1900s to the late 1940s. Copper was also used starting in the 1930s. The relatively inferior material of galvanized and cast iron are subject to rust related water quality and restricted flow problems from plugging as well as leak frequency from deterioration and corrosion. Older copper lines (50 years old + or -) are starting to show signs of leak failures from the old tube nut fittings used to couple fittings together. From a cost and end product comparison it is more efficient to replace than repair. The District has a long term program to replace and upgrade all sub standard services.

**Origin of the Subprogram:**

There are approximately 1,000 (1/2" to 2" size) galvanized, cement lined iron, and cast iron domestic services, and an additional 11,000 copper services installed prior to 1950. We also have 260 cast iron services installed prior to 1950. Our goal is to replace at least 300 services per year.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Renewal and Replacement	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000
Water Distribution System	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000
61\3082\Water Services - Renew Domestic and Fire	\$600,000	\$600,000	\$600,000	\$600,000	\$600,000
<b>Grand Total</b>	<b>\$600,000</b>	<b>\$600,000</b>	<b>\$600,000</b>	<b>\$600,000</b>	<b>\$600,000</b>

**Previous Years on CIP:** All

**Related Projects:**

**Procurement Issues:** Project to be performed using District Staff, equipment, and materials and contracted through our main replacement projects.



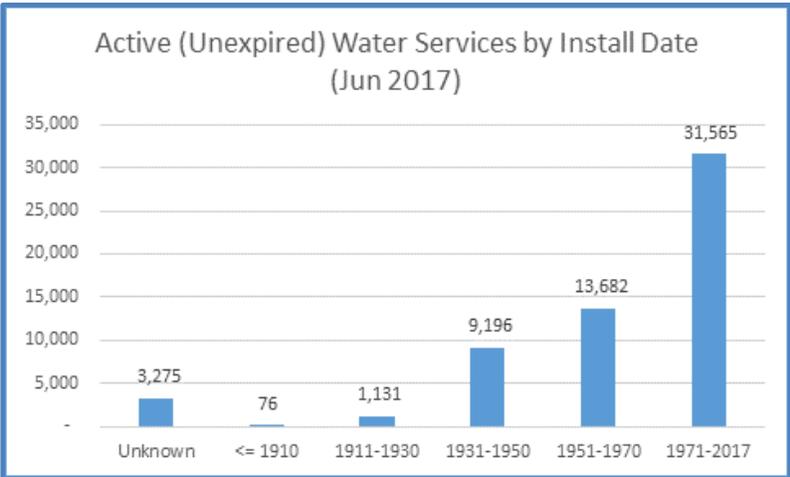
Locates for an 8" Fire Service and 4" domestic Service

**Subprogram # 61**                      **Water Services - Renew Domestic & Fire**

**Active (Unexpired) Water Services by Install Date**

Install Date	# Services	%
Unknown	3,275	5.9%
<= 1910	76	0.1%
1911-1930	1,131	2.0%
1931-1950	9,196	16.5%
1951-1970	13,682	24.6%
1971-2017	31,565	56.7%

**Total**                                      **55,650**



**Subprogram # 65** **Water Hydrants Replacement**

**Division:** Water - General  
**Funding:** R & R – Water –Div. 20

**Manager:** Wallace, Jim  
**Priority:** Routine replacement

**Description:**

Replace and upgrade obsolete hydrants to meet current safety and operational standards, and to insure inventory parts availability for hydrant repairs.

**Justification / Impact:**

Replacement is determined and prioritized by: (1) hydrant failures (major damage and/or external leak,) (2) upgrade and replacement of obsolete sub standard hydrants based on (age - safety standards - repair parts availability - cost comparison to replace or repair,) (3) distribution main replacement program, (4) municipal and state reconstruction projects and (5) data gathered from the Hydrant Repair and Reconditioning Programs and the Winter Hydrant Inspection Program.



**History:**

The O&M Hydrant Repair/Reconditioning Programs and the Hydrant Winter Inspection Programs have been in place since the early 60s. These programs insure that our hydrants meet fire protection standards and provide direction for our C. I. P. Replacement Program. In recent times the ability to procure replacement parts for the 620 Matthews Post hydrants (Vintage late 1800s to the late 1940s) has become difficult or impossible. The 870 Darling B-50 hydrants (vintage early 1950s to early 1960s) require major internal rebuilding. Both hydrant makes are not traffic model hydrants and fail to have a sheer point to breakaway on impact. This failure results in costly repairs and replacements, and is unsafe in many highway standards (Deadly-Fixed-Objects Regulation).

**Origin of the Subprogram:**

Our project is focused on replacing and upgrading 75 hydrants per year over a twenty year replacement program of 1450 hydrants.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Renewal and Replacement	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
Water Distribution System	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
65\3072\Water Hydrant Replacement	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000
<b>Grand Total</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>	<b>\$200,000</b>

**Previous Years on CIP:** All

**Related Projects:**

**Procurement Issues:** Project is performed using District staff, equipment, and materials.

**Subprogram # 122 Water Facilities Renewal and Replacement**

**Division:** Water - General

**Manager:** Wallace, Jim

**Funding:** R & R – Water- Div. 20

**Priority:** Routine replacement

**Description:**

This is an ongoing project designed to maintain and improve water pump stations, treatment facilities and related infrastructure. Modifications and upgrades will ensure adequate capacity, reliability and safety of these facilities.

**Justification / Impact:**

Components of the older pump stations that have reached their useful life and obsolete equipment should be replaced. Replacing this equipment before it fails completely reduces the amount spent on operating and maintaining the equipment.

**History:**

This planned renewal and replacement will assist operations in moving toward a goal of performing more predictive and preventive maintenance instead of emergency maintenance.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Renewal and Replacement	\$610,000	\$950,000	\$600,000	\$580,000	\$100,000
Water Facilities Program	\$610,000	\$950,000	\$600,000	\$580,000	\$100,000
122\3008\Steep Falls Upgrade - Phase 1	\$300,000				
122\3032\Water Facilities R&R	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
122\3210\Chemical Storage Facilities Upgrades		\$50,000	\$500,000		
122\3211\Windham Pump Upgrades	\$100,000	\$650,000			
122\3240\SLWTF Raw Water Pump #4 Rebuild				\$180,000	
122\3245\Throttling Valve Rehabilitation	\$10,000	\$150,000			
122\3246\Intake Structures Condition Assessm	\$100,000				
122\3252\Fuel Storage Tank Upgrade				\$300,000	
<b>Grand Total</b>	<b>\$610,000</b>	<b>\$950,000</b>	<b>\$600,000</b>	<b>\$580,000</b>	<b>\$100,000</b>



**Subprogram # 18 SLWTF Intakes - Replace Mechanical Screens**

**Division:** Water - General **Manager:** Johnson, Gordon  
**Funding:** Bonds - Water- Div. 20 **Priority:** Routine replacement

**Description:**

This project involves selecting and installing a screen system to replace the existing screens in service at the intakes on Sebago Lake. The present systems use two travelling screens with backwash at each location with three sets of hand screens at the 1925 Intake and two sets of hand screens at the 1952 Intake.

**Justification / Impact:**

The existing equipment is approaching 50 years old and is basically worn out. The new equipment will be chosen to automate the screening process as much as possible to minimize operator time and reduce/prevent fish breakthrough.

**History:**

The intake screens were supposed to be retired after SLWTF start-up. Manual screens, designed for the inlet channel of the ozone contactor, were supposed to replace the need for the ones at the intakes. Unfortunately, a method for washing the screens was not designed into the facility. Many attempts were made to use the inlet screens before deciding to continue the use of the intake screens.

**Origin of the Subprogram:**

The hand and travelling screens at the intake buildings were installed in the early 1950's. They are past their expected lifespan. Present washing procedures are labor intensive, requiring nine to fifteen labor hours per week. We have experienced small fish getting by the screens and showing up in the clearwell. The ozone and chlorination process kills the fish, but we do not want to let them escape into the system.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Bond		\$240,000	\$3,500,000		
Water Facilities Program		\$240,000	\$3,500,000		
18\3007\SLWTF Intake Screening Phase 1		\$240,000	\$3,500,000		
<b>Grand Total</b>		<b>\$240,000</b>	<b>\$3,500,000</b>		

**Previous Years on CIP:** 1998 to present

**Related Projects:**

**Subprogram # 203 Water Storage Facility Maintenance & Upgrade**

**Division:** Water - General

**Manager:** Johnson, Gordon

**Funding:** R & R - Water - Div. 20

**Priority:** Routine replacement

**Description:**

This project consists of developing a maintenance program. Maintenance that may be necessary includes leak repair, painting, inside liners, base and/or cover needs. Once this work is complete, a multi-year program of maintenance contracts will be implemented to upgrade individual facilities. In some facilities, recirculation systems to routinely turn over the water in the tank and/or new altitude valves will be installed.

**Justification / Impact:**

Basic maintenance to preserve and prolong the useful life of needed facilities. Prevent water quality problems due to corrosion and from water stagnating in the tank.

**History:**

Several steel standpipes and elevated tanks have been removed over the last decade. Those that remain will be evaluated for their hydraulic value and water quality impact in the Comprehensive Water System Strategic Plan. Those that are considered to be valuable hydraulic assets to the water system will be upgraded via this ongoing program.

**Origin of the Subprogram:**

Maintenance has been deferred for several years pending completion of a hydraulic study to determine which tanks still have hydraulic value.

**Budget Summary:**

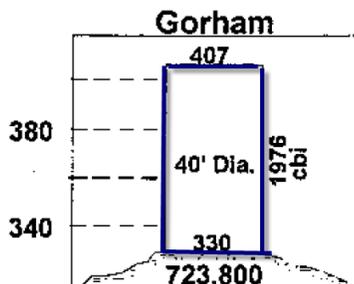
PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Renewal and Replacement	\$50,000	\$500,000	\$50,000	\$50,000	\$50,000
Water Facilities Program	\$50,000	\$500,000	\$50,000	\$50,000	\$50,000
203\3102\Water Storage Facility Maintenance & Upgrade	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
203\3104\Water Tank Maintenance- Gorham Tank Rehab		\$450,000			
<b>Grand Total</b>	<b>\$50,000</b>	<b>\$500,000</b>	<b>\$50,000</b>	<b>\$50,000</b>	<b>\$50,000</b>

**Previous Years on CIP:**

Since 2000

**Procurement Issues:**

RFP preparation and contract administration will be by District Staff. Maintenance and repair services will be competitively bid.



Gorham Tank is scheduled for Rehabilitation and Painting in 2023

**Subprogram # 46** **Water System Security**

**Division:** Water - General

**Manager:** Wallace, Jim

**Funding:** R & R – Water – Div.20

**Priority:** Security of facilities

**Description:**

This program is to improve the physical security of the District's water facilities. The program supports installing and upgrading security measures on District property and facilities. These measures include perimeter fencing, signage, access control, cyber keys and locks, video surveillance and monitoring, security lighting and improved SCADA monitoring.

**Justification / Impact:**

The District has performed two Vulnerability Assessments (2003, 2015) and has been following the recommendations from these reports.

**History:**

In the fall of 2004 and summer of 2005 fencing was installed on the East and West side of the lower bay inside the 2 mile limit. This was funded through the CIP. In 2005 hatch covers along with alarms were installed over tank hatches and a cyberlock system was installed on all SCADA panels. This was funded by a grant from MEMA - Homeland Security. In subsequent years video surveillance and access control were expanded to all major facilities across the District along with continued improvements to perimeter fencing and access control.



**Origin of the Subprogram:**

The vulnerability assessment completed in March of 2003 indicated that physical protection of existing facilities could be improved. Many of those recommendations were completed and a new Vulnerability Assessment was completed in 2015 and new recommendations are now determining the water system security improvements.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Renewal and Replacement	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
Water Supply	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
46\3097\Water System Security Improvements	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000
<b>Grand Total</b>	<b>\$25,000</b>	<b>\$25,000</b>	<b>\$25,000</b>	<b>\$25,000</b>	<b>\$25,000</b>

**Previous Years on CIP:** 2004 to present

**Related Projects:**

**Procurement Issues:** Standard purchasing procedures will apply.

## Cape Elizabeth Wastewater

### Cape Elizabeth – Wastewater Treatment Facilities

In response to a regulatory requirement to eliminate bypassing of flows during periods of wet weather, upgrades were completed in 2012 to increase the peak flow capacity of the facility. These upgrades included new influent screening, high flow and low flow return sludge pumps, upsizing a portion of the secondary clarifier effluent piping, and new effluent pumps. Recent engineering evaluations include assessments of the aeration and secondary clarifier structures, disinfection systems, secondary clarification, aeration process control, electrical/power distribution and plant-wide HVAC. Upgrades recently completed or ongoing include:

- Heating and ventilation system to serve the headworks and sludge thickening areas
- Replacement of the chlorine and sodium bisulfite chemical disinfection systems with Ultraviolet Disinfection



**Headworks HVAC Upgrade** – 2018 CIP 424, project 2571 - Main air handler and hydronic piping during construction. The system was brought online Summer 2021.

### Cape Elizabeth – Sewer System

The current CSO Master Plan identifies reduction of CSO volume through infiltration/inflow (I/I) reduction within the Town's and City of South Portland's collection systems and improvements to the Ottawa Road Pump Station. The Town of Cape Elizabeth completed a project that installed new storm drains and helped remove private I/I from residential homes. South Portland has also done work removing catch basins from the sewer system and installing storm drains. PWD work at the Ottawa Road Pump Station is underway or in development including upgrades to standby power, flow measurement, and pumping.

CCTV assessment of the collection system is ongoing as part of the District's 10 year program to inspect its entire collection system.

### Cape Elizabeth - Pump Stations

The District has continued with the installation of standby power generators at key pump stations. These generators enable systems to operate during the frequent power outages that occur in Cape Elizabeth while reducing manpower during these events. Additionally, automated emergency power goes a long way towards eliminating the occasional back-ups that have occurred within the collection system.

In the spring of 2021 PWD completed upgrades to the Family Field (Little John) Pump Station. This project included upgrades to the power distribution system and associated switchgear, controls and telemetry, piping, and pump #1 replacement. Planned improvements for the Cape Elizabeth Wastewater collection and treatment are shown in CIP subprograms 52 and 424.

## Cape Elizabeth Wastewater (continued)

### Program Summary

	-2022-	-2023-	-2024-	-2025-	-2026-
WW Collection & Pumping	\$375,000	\$360,000	\$25,000		
WW Treatment	\$225,000	\$1,875,000	\$25,000	\$100,000	\$275,000
<b>Grand Total</b>	<b>\$600,000</b>	<b>\$2,235,000</b>	<b>\$50,000</b>	<b>\$100,000</b>	<b>\$275,000</b>

### Projects by Program

	-2022-	-2023-	-2024-	-2025-	-2026-
▣ WW Collection & Pumping	\$375,000	\$360,000	\$25,000		
52\3005\Ottawa Rd PS Upgrades	\$350,000				
52\3130\Cape Elizabeth Pump Station R&R	\$25,000	\$25,000	\$25,000		
52\3168\Stonegate South Upgrades		\$90,000			
52\3169\Algonquin PS Upgrades		\$135,000			
52\3170\Peabbles Cove PS Upgrades		\$90,000			
52\3251\Peabbles Point PS Electrical Enclosure		\$20,000			
▣ WW Treatment	\$225,000	\$1,875,000	\$25,000	\$100,000	\$275,000
21\2564\Security Improvements	\$25,000				
424\3129\Cape Elizabeth WWTF- R&R	\$25,000	\$25,000	\$25,000		
424\3188\Aeration and Clarification Upgrade	\$125,000	\$1,850,000			
424\3189\Boiler Upgrade/Replacement				\$100,000	
424\3207\Sludge Handling and Headworks Odor Control					\$275,000
424\3213\WAS Piping and RDT Drive Upgrade	\$50,000				
<b>Grand Total</b>	<b>\$600,000</b>	<b>\$2,235,000</b>	<b>\$50,000</b>	<b>\$100,000</b>	<b>\$275,000</b>

### Financing Summary

	-2022-	-2023-	-2024-	-2025-	-2026-
Bond	\$350,000	\$225,000			
Bond SRF	\$125,000	\$1,850,000			
Renewal and Replacment	\$125,000	\$160,000	\$50,000	\$100,000	\$275,000
<b>Grand Total</b>	<b>\$600,000</b>	<b>\$2,235,000</b>	<b>\$50,000</b>	<b>\$100,000</b>	<b>\$275,000</b>

**Subprogram # 52**

**Cape Elizabeth Pump Stations - R&R**

**Division:** Wastewater - Cape Elizabeth

**Manager:** Poulin, Charlene

**Funding:** Bond and R&R – Wastewater – Div. 51

**Priority:** Routine replacement

**Description:**

This program provides a planned approach for the replacement of obsolete equipment in Cape Elizabeth wastewater pump stations.

**Justification / Impact:**

The pump stations have reached the end of their useful design life and obsolete equipment must be replaced. Upgrades, including the addition of VFD's in some cases, will provide more pumping capacity, mitigate CSO activity, and provide some power savings.

**History:**

This planned approach will assist maintenance and operations in moving toward a goal of performing more predictive/preventative maintenance instead of emergency maintenance.



Ottawa Road Pump Station – Installed in 1976 – scheduled for upgrade in 2021

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
<b>Bond</b>	\$350,000	\$225,000			
WW Collection & Pumping	\$350,000	\$225,000			
52\3005\Ottawa Rd PS Upgrades	\$350,000				
52\3169\Algonquin PS Upgrades		\$135,000			
52\3170\Peabbles Cove PS Upgrades		\$90,000			
<b>Renewal and Replacement</b>	\$25,000	\$135,000	\$25,000		
WW Collection & Pumping	\$25,000	\$135,000	\$25,000		
52\3130\Cape Elizabeth Pump Station R&R	\$25,000	\$25,000	\$25,000		
52\3168\Stonegate South Upgrades		\$90,000			
52\3251\Peabbles Point PS Electrical Enclosure		\$20,000			
<b>Grand Total</b>	<b>\$375,000</b>	<b>\$360,000</b>	<b>\$25,000</b>		

**Previous Years on CIP:** 2005 to present

**Related Projects:** Subprogram #407

## Condition Assessment – Cape Elizabeth Pump Stations

### 2020 Cape Elizabeth Pump Station Report

Cape Elizabeth			
ID	Name	2020 ratings	2014 ratings
CEP70	Wildwood	4.66	2.95
CEP62	Broad Cove South	4.65	3.15
CEP44	Family Field	4.49	2.76
CEP60	Stonegate North	4.49	3.47
CEP41	Garden Ln Pump Station	4.16	5.0
CEP69	Tall Pines	4.02	2.58
CEP50	Cragmoor North	4.00	3.65
CEP57	Clifford	4.00	4.00
CEP67	Hunt's Point	4.00	3.90
CEP72	Gull Crest	4.00	3.08
CEP73	Gull Crest Transfer Station	4.00	3.04
CEP51	Cragmoor South	3.86	3.30
CEP53	Birch Knoll	3.79	4.00
CEP52	Pachios	3.78	3.97
CEP74	Tall Pines East	4.02	4.67
CEP68	Spurwink	3.72	4.16
CEP63	Broad Cove North	3.71	3.79
CEP65	Peabbles Cove	3.57	3.31
CEP64	Algonquin (2023 proposed)	3.47	3.30
CEP49	Oakhurst	3.44	2.94
CEP47	Mitchell Road	3.43	3.16
CEP71	Cross Hill	3.42	3.65
CEP61	Running Tide	3.14	3.59
CEP59	Stonegate South (2023 proposed)	3.12	3.04
CEP66	Peabbles Point (2023 proposed)	3.12	2.87
CEP43	Ottawa Road (2022 proposed)	2.79	2.09
CEP42	Maiden Cove (under Construction)	2.14	1.98
<b>Cape Elizabeth Average</b>		<b>3.74</b>	<b>3.53</b>
<b>PWD -All Average</b>		<b>3.72</b>	

**Subprogram # 424**

**Cape Elizabeth WWTF**

**Division:** Wastewater - Cape Elizabeth  
**Funding:** R & R – Wastewater – Div. 51

**Manager:** Rodriguez, Paul  
**Priority:** Routine replacement

**Description:**

Provide for plant upgrades required to continue to meet regulatory and operational requirements and for the timely routine replacement of equipment nearing the end of its service life. The plant came online in 1988 along with the Spurwink Pump Station that pumps all of the Southern Cape Elizabeth system’s flow to the plant. Treated water is pumped to an outfall located near Peabbles Cove in accordance with the plant’s discharge permit which was renewed in December 2016.



**Justification / Impact:**

Physical assets require scheduled maintenance and eventual replacement. Planned upgrades include instrumentation and control in accordance with current industry practice and provide enhanced automation, monitoring and control of the treatment processes. Regulatory requirements are continuously revised and updated by the EPA and administered by the Maine Department of Environmental Protection. This account provides for the equipment replacement and system upgrades necessary to continue to meet regulatory and operational requirements.

**History:**

To meet the goals of this subprogram the District is continuously engaged in the Capital Improvement Program Process described in the Introduction of the Capital Expenditures section. Within the past 10 years investments have been made in influent screening, headworks HVAC, effluent disinfection, effluent pumping, and return activated sludge pumping. Recent assessments include the plant’s treatment tankage, HVAC systems, electrical systems, and activated sludge process control.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Bond SRF	\$125,000	\$1,850,000			
WW Treatment	\$125,000	\$1,850,000			
424\3188\Aeration and Clarification Upgrade	\$125,000	\$1,850,000			
Renewal and Replacement	\$75,000	\$25,000	\$25,000	\$100,000	\$275,000
WW Treatment	\$75,000	\$25,000	\$25,000	\$100,000	\$275,000
424\3129\Cape Elizabeth WWTF- R&R	\$25,000	\$25,000	\$25,000		
424\3189\Boiler Upgrade/Replacement				\$100,000	
424\3207\Sludge Handling and Headworks					
Odor Control					\$275,000
424\3213\WAS Piping and RDT Drive Upgrade	\$50,000				
<b>Grand Total</b>	<b>\$200,000</b>	<b>\$1,875,000</b>	<b>\$25,000</b>	<b>\$100,000</b>	<b>\$275,000</b>

Previous Years on CIP: 2006

## Cumberland Wastewater

### Cumberland – Pump Stations

In 2007, the District completed upgrading the Tuttle Road pump station and the Foreside Road pump station. The Powell Road pump station was completed in 2008. In 2011, the 4th year of CCTV assessment of buried infrastructure was completed. An emergency generator was installed at the Smalls Brook Crossing pump station. This was part of a continued program to install emergency generators at pump stations. In 2014, an assessment of all of the pump stations in the system was completed to assist with prioritization and CIP development. In 2017, the Longmeadow pump station was upgraded including replacement pumps and telemetry panel.

The District and the Town of Cumberland have investigated infiltration and inflow (I/I) sources in the collection system. CCTV work, flow monitoring, and smoke testing are used to identify sources of I/I. The Town of Cumberland, with the District's assistance, also inspects homes in an effort to properly manage sump pumps and other sources of inflow. This project is intended to better understand the peak flows that will be sent to Falmouth for treatment and will possibly impact the capacity and cost of shared infrastructure in Falmouth.

The Town of Falmouth replaced the joint use Mill Creek Pump Station and Force Main, which came online in 2017. Planned improvements to the Cumberland system are shown in CIP subprogram #41.

### Cumberland WW system



## Cumberland Wastewater (continued)

### Program Summary

	-2022-	-2023-	-2024-	-2025-	-2026-
WW Collection & Pumping	\$20,000	\$2,540,000	\$20,000	\$20,000	\$20,000
<b>Grand Total</b>	<b>\$20,000</b>	<b>\$2,540,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>

### Projects by Program

	-2022-	-2023-	-2024-	-2025-	-2026-
▣ WW Collection & Pumping	\$20,000	\$2,540,000	\$20,000	\$20,000	\$20,000
41\3136\Cumberland WW Pump Stations - R&R	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
41\3171\Stony Ridge Pump Replacement		\$290,000			
41\3172\Ocean Terrace PS Pump Replacement, Bypass		\$350,000			
41\3173\Ferne Lane PS Pump Replacement		\$300,000			
41\3174\Ledge Rd PS Upgrades		\$190,000			
41\3175\Brookside PS Pump and Electrical Upgrades		\$300,000			
41\3176\Cumberland Meadows PS Upgrades		\$260,000			
41\3177\Smalls Brook PS Upgrades		\$190,000			
41\3243\Longmeadow PS Generator Addition		\$105,000			
41\3244\Powell Rd PS Conversion to Submersible PS		\$535,000			
<b>Grand Total</b>	<b>\$20,000</b>	<b>\$2,540,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>

### Financing Summary

	-2022-	-2023-	-2024-	-2025-	-2026-
Bond		\$2,415,000			
Renewal and Replacment	\$20,000	\$125,000	\$20,000	\$20,000	\$20,000
<b>Grand Total</b>	<b>\$20,000</b>	<b>\$2,540,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>

**Subprogram # 41****Cumberland WW Pump Stations - R&R****Division:** Wastewater - Cumberland**Manager:** Poulin, Charlene**Funding:** R & R – Wastewater- Div. 53**Priority:** Routine replacement**Description:**

This project provides for continual upgrade of the pumping stations located within the Cumberland wastewater system. In most cases the work involves pump and rail replacements along with control modifications.

**Justification / Impact:**

Physical assets require scheduled maintenance and eventual replacement. This program will provide a planned approach to the maintenance management of Cumberland's wastewater pump stations.

**History:**

This planned approach will assist maintenance and operations in moving towards a goal of predictive and preventative maintenance.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Bond		\$2,415,000			
WW Collection & Pumping		\$2,415,000			
41\3171\Stony Ridge Pump Replacement		\$290,000			
41\3172\Ocean Terrace PS Pump Replacement, Bypass		\$350,000			
41\3173\Ferne Lane PS Pump Replacement		\$300,000			
41\3174\Ledge Rd PS Upgrades		\$190,000			
41\3175\Brookside PS Pump and Electrical Upgrades		\$300,000			
41\3176\Cumberland Meadows PS Upgrades		\$260,000			
41\3177\Smalls Brook PS Upgrades		\$190,000			
41\3244\Powell Rd PS Conversion to Sub. PS		\$535,000			
Renewal and Replacement	\$20,000	\$125,000	\$20,000	\$20,000	\$20,000
WW Collection & Pumping	\$20,000	\$125,000	\$20,000	\$20,000	\$20,000
41\3136\Cumberland WW Pump Stations - R&R	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
41\3243\Longmeadow PS Generator Addition		\$105,000			
<b>Grand Total</b>	<b>\$20,000</b>	<b>\$2,540,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>

**Previous Years on CIP:** 2001 to present**Procurement Issues:** RFP for engineering services. Construction services will be low bid.

## Condition Assessment – Cumberland Pump Stations

### 2020 Cumberland Pump Station Report

Cumberland			
ID	Name	2020 rating	2014 rating
CUP45	Longmeadow	4.56	3.65
CUP54	Drowne Road	4.06	4.93
CUP55	Twin Brook	4.00	3.83
CUP41	Foreside Road	3.93	3.75
CUP51	Cumberland Meadow	3.75	3.63
CUP46	Ledge Road (2023 proposed)	3.70	3.82
CUP52	Small's Brook Crossing (2023 proposed)	3.54	3.43
CUP43	Tuttle Road (2023 proposed)	3.51	3.80
CUP44	Ocean Terrace (2023 proposed)	3.45	3.26
CUP42	Powell Road (2023 proposed)	3.36	3.73
CUP47	Ferne Lane (2023 proposed)	3.35	3.81
CUP48	Brookside (2023 proposed)	3.31	3.18
CUP50	Stony Ridge (2023 proposed)	3.19	3.60
<b>Cumberland Average</b>		<b>3.67</b>	<b>3.72</b>
<b>PWD -All Average</b>		<b>3.72</b>	



**2016 – Longmeadow P.S.** installed in 1983 – condition rating was 3.26 - Upgrades included new SCADA and pump control panels, pumps, valves, and electrical work. New rating is 4.56

## Gorham/Westbrook/Windham Wastewater

### Westbrook Regional Treatment Plant

The Westbrook Regional WWTF was brought online in the mid '70s. Over the years the District has completed various improvements including:

- Plant water system (2006)
- Clarifier scum removal (2006)
- Scum handling, and sludge conveyances control (2006)
- Plant electrical system – Standby Generator (2008)
- Polymer system (2010)
- RAS pumps (2011)
- Plant Control System (2013)
- RAS distribution and flow split to the secondary clarifiers (2014)
- Sludge Dewatering (2018)

Proposed major modifications for a headworks upgrade were set aside in favor of installing screens at the two major pump stations feeding the treatment plant. Start-up of these systems at the Cottage Place and East Bridge St. Pump Stations in 2008 successfully eliminated pump plugging and has reduced the quantity of rags at the treatment plant. Additional improvements to reduce the spacing of the screens at the pump stations are planned to begin in winter 2021 to further remove rags and debris from the plant influent.

In 2013, design and replacement of the control system began. This was completed in 2014 along with chemical feed pumps, residual samplers, and enhanced automation of the disinfection system.

The aeration system was evaluated in 2015 to develop a roadmap for the eventual upgrade of the aeration system as it nears the end of its service life. The 2019 CIP included design phase services to upgrade the aeration system and secondary clarification process. These upgrades will facilitate process control to maintain dissolved oxygen to meet today's loadings, match current peak demand, and provide more energy efficient oxygen delivery. Similar to the East End plant in Portland, a selector is recommended to enhance process control and improve settleability.

The secondary clarification process at Westbrook has not been upgraded or modified since its original construction and the sludge withdrawal mechanisms are nearing the end of their useful life based on an assessment of the clarifiers completed in 2016. Construction of the aeration and secondary clarification upgrade is underway and scheduled for completion by the summer of 2023. In addition to much needed replacement of the aeration and secondary clarification equipment, the upgrades will include new power distribution systems and electrical switchgear.



## Gorham/Westbrook/Windham Wastewater (continued)

In 2015, the District completed an evaluation of sludge dewatering technologies for the Westbrook Regional WWTF, including rehabilitation of the existing belt filter press. Alternative technologies were piloted to quantify the improvement in dewatering performance as compared to the existing equipment. It was determined that alternative technologies would increase the dewatered sludge solids content from an average of approximately 16% to a minimum of 20%, which significantly reduces the volume of sludge to be disposed. As a result, in 2016 the proposed belt filter press rehabilitation project was replaced with a proposed upgrade to an alternative technology (CIP #167 project 2534). In 2016, equipment was competitively procured and upgrade to a screw press began in January of 2017 and was completed in the spring of 2018. Design work to remove the belt filter press control panel, which includes a number of hard-wired interconnects with various system components, along with associated control system modifications is underway and expected to be complete by the end of 2021.

In 2020 the District competitively pre-procured a 3-way valve and pneumatic actuator to create a 4<sup>th</sup> discharge zone to facilitate more complete filling of the sludge storage container with the drier cake produced by the new screw press system. The new valve was installed along with a new control station and associated electrical during the summer of 2021.



**2019 CIP 416 project 3001 - Cake Unloading Valve during installation**

In 2020 the District designed improvements to the dewatering polymer handling system including competitive pre-procurement of a polymer makedown system and an improved tote storage area to facilitate access, polymer mixing, and complete tote drainage to maximize product usage. Construction of the new storage area is now complete and in use; work is in progress to bring the new makedown system online and complete control system testing and startup which is planned for fall 2021.



**2019 CIP 416 project 3026 - Polymer System Improvements**

## Gorham/Westbrook/Windham Wastewater (continued)

### Westbrook – Sewer System

In late 2007, the District hired Woodard & Curran, Brown & Caldwell and Jordan Environmental to update the City of Westbrook's CSO Master Plan. This plan was completed and submitted to Maine DEP in 2008. Some of the work included in the plan involved the City, and some involved the District. Because the City operates the collection system, the bulk of the first five years would focus on the removal of infiltration and inflow (I/I) from the City collection system. Later portions of the plan would include storage and other work on District owned assets. Since the plan was updated, all flow from all the CSO outfalls are now continuously monitored.

The plan was updated in 2014 and submitted to the DEP per the State's requirements. The plan included a summary of the work completed in the first 5 years and a revised set of projects and schedule. The projects that involve District facilities are being completed in accordance with the Master Plan and have included several projects to increase the capacity of the interceptor system. The Master Plan included upgrades and capacity increase at the Dana Court Pump Station (CIP #29 project 2527). This project was completed in 2019. The plan also included the addition of floatables containment at the CSO diversion structure prior to the Cottage Place pump station (CIP #29 project 2524). This project was completed in 2020. The District is currently considering proposals for engineering services to complete the next Master Plan update which will include improvements to the system model leveraging flow metering to calibrate it and assess the impact of the projects completed to date.

### Gorham/Windham – Pump Stations and Collector Systems

In May of 2008, flows from the Town of Windham, the Maine Correctional Center and the Little Falls section of Gorham were re-directed to the Westbrook/Gorham/Windham WWTF for treatment. This action led to the closure of two outfalls into the Presumpscot River. This project also led to an upgrade of the Tow Path pump station and the decommissioning of the treatment plant in Little Falls in 2010. Due to the relatively young age of most of Gorham's other pump stations, preventive maintenance, condition assessment through CCTV inspection of buried infrastructure, and minor repairs have been the focus in recent years.

To increase reliability and improve service during power outages, standby generators have been installed at most of the pump stations. In 2014, an assessment of all of the pump stations in the system was completed, and stations with identified needs were then flagged for more detailed investigation. As a result of those studies, upgrades at the Androscoggin PS (CIP #180 project 2317) and Canterbury Pines PS (CIP #60 project 1117) were completed by the end of 2017.

To ensure that accurate wastewater flow is measured and used for allocating operating costs to the Town of Gorham, a flow meter was installed to measure the flow from the Town of Gorham to the Westbrook/Gorham/Windham WWTF. This meter was installed and is maintained by a third party vendor as part of the District's extensive flow monitoring program.

## Gorham/Westbrook/Windham Wastewater (continued)

Gorham, Westbrook and Windham are served by a centralized wastewater treatment plant in Westbrook. Capital costs are allocated by each municipality's relative design capacity of the specific infrastructure.

### Program Summary

	-2022-	-2023-	-2024-	-2025-	-2026-
▣ SCADA & Technology				\$25,000	
Westbrook Joint				\$25,000	
▣ WW Collection & Pumping	\$130,000	\$890,000	\$60,000	\$3,260,000	\$60,000
Gorham	\$20,000	\$350,000	\$20,000	\$20,000	\$20,000
Westbrook	\$20,000	\$20,000	\$20,000	\$3,220,000	\$20,000
Windham	\$90,000	\$520,000	\$20,000	\$20,000	\$20,000
▣ WW Treatment	\$10,150,000	\$65,000	\$1,200,000	\$700,000	\$2,125,000
Westbrook Joint	\$150,000	\$65,000	\$1,200,000	\$700,000	\$2,125,000
Windham	\$10,000,000				
<b>Grand Total</b>	<b>\$10,280,000</b>	<b>\$955,000</b>	<b>\$1,260,000</b>	<b>\$3,985,000</b>	<b>\$2,185,000</b>

### Projects by Program

	-2022-	-2023-	-2024-	-2025-	-2026-
▣ SCADA & Technology				\$25,000	
177\3127\Westbrook SCADA Server Replacement Program				\$25,000	
▣ WW Collection & Pumping	\$130,000	\$890,000	\$60,000	\$3,260,000	\$60,000
180\3138\Windham- Little Falls WW System - R&R	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
29\3231\PEND - CSO Storage Facility				\$3,200,000	
411\3134\Westbrook WW Systems R&R	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
60\3137\Gorham WW Pump Station - R&R	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
60\3178\Gateway Commons PS Upgrades			\$85,000		
60\3179\Park South PS Upgrades			\$95,000		
60\3180\Briarwood PS Telemetry Upgrade			\$75,000		
60\3181\Meadowland PS Telemetry Upgrade			\$75,000		
180\3229\Rte 202 PS Generator Installation	\$70,000				
180\3139\Windham - Depot Street Pump Station		\$500,000			
▣ WW Treatment	\$10,150,000	\$65,000	\$1,200,000	\$700,000	\$2,125,000
416\3132\Westbrook Gorham Windham WWTF R&R	\$50,000	\$50,000	\$50,000		
416\3159\Plant Water System Rehab/Controls					\$125,000
416\3166\Process Area Ventilation Upgrades			\$750,000		
416\3190\Access Road and Parking Lot Resurfacing		\$15,000	\$400,000		
416\3191\TWAS Mixing System Replacement				\$150,000	
416\3198\WAS and GBT System Upgrade/Rehabilitation				\$350,000	
416\3232\Septage Screening Facilities				\$200,000	\$2,000,000
416\3247\Locker Room Renovation		\$100,000			
182\3241\North Windham WWTF	\$10,000,000				
<b>Grand Total</b>	<b>\$10,280,000</b>	<b>\$955,000</b>	<b>\$1,260,000</b>	<b>\$3,985,000</b>	<b>\$2,185,000</b>

### Financing Summary

	-2022-	-2023-	-2024-	-2025-	-2026-
Bond	\$70,000	\$680,000	\$750,000	\$3,750,000	\$2,000,000
Bond SRF	\$10,000,000				
Renewal and Replacment	\$210,000	\$275,000	\$510,000	\$235,000	\$185,000
<b>Grand Total</b>	<b>\$10,280,000</b>	<b>\$955,000</b>	<b>\$1,260,000</b>	<b>\$3,985,000</b>	<b>\$2,185,000</b>

**Subprogram # 180****Windham - Little Falls WW System****Division:** Wastewater - Windham Little Falls**Manager:** Poulin, Charlene**Funding:** Bonds, R&R – Wastewater – Div. 55**Priority:** Routine replacement**Description:**

This program provides for a planned approach to the replacement of obsolete equipment for the Windham-Little Falls wastewater pump stations. Few improvements had taken place during the first 35 years of operation. The scope of this program is based on the amount of required maintenance and current performance of the existing infrastructure. The scope includes complete replacement of drives, motors, pumps, controls and other major equipment to ensure operational reliability of the pump stations.

**Justification / Impact:**

When pump stations have reached the end of their useful design life (typically 20-years) obsolete equipment should be replaced. These improvements will ensure the pump stations continue to deliver adequate flows to the WWTF with increased reliability. Additionally, these needed improvements will allow for a Preventative Maintenance plan that will keep the pump stations operating at the design level well into the life of the upgrade.

**History:**

The original Windham-Little Falls wastewater system was built in 1987. The original system included two pump stations. These two pump stations were to be replaced with a single new pump station as part of the 2008 redevelopment of the Keddy Mill site. This project was never completed and the existing pump stations are now more than 35-years old. In 2019 CIP Depot street Pump Station Phase 1 design and construction was approved but due to delays the project was completed in October of 2021. Phase 2 of the Depot Street Pump Station project will coincide with the Keddy Mill clean-up and redevelopment.

**Origin of the Subprogram:****Budget Summary:**

<b>PROJECTS</b>	<b>-2022-</b>	<b>-2023-</b>	<b>-2024-</b>	<b>-2025-</b>	<b>-2026-</b>
<b>Bond</b>	\$70,000	\$500,000			
WW Collection & Pumping	\$70,000	\$500,000			
180\3139\Windham - Depot Street Pump Station –Phase 2					
<i>Note this project is pending clean-up and redevelopment of Keddy Mill</i>		\$500,000			
180\3229\Rte 202 PS Generator Installation	\$70,000				
<b>Renewal and Replacement</b>	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
WW Collection & Pumping	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
180\3138\Windham- Little Falls WW System - R&R	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
<b>Grand Total</b>	<b>\$90,000</b>	<b>\$520,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>

**Previous Years on CIP:**

2000 to present

**Procurement Issues:**

Engineering and contracting will be via standard competitive retention procedures.

**Subprogram # 180**

**Windham - Little Falls WW System**

The Depot Street Pump Station Project – phase 1 (2019 – project # 3139)– Replacing siphon with new Pump Station will be in conjunction with the District replacing water mains on Depot Street and installing a 407- zone transmission main and the town reconstructing portion of Depot Street. This was completed in 2021.



Contractor installing the Pump Station at Depot Street

**Condition Assessment - Windham Pump Stations**

**2020 Windham Pump Station Report**

Windham			
ID	Name	2020 rating	2014 rating
WIP43	Androscoggin	4.26	2.93
WIP52	RT 202 PS <span style="background-color: yellow;">(Proposed 2022)</span>	2.88	2.87
<b>Windham Average</b>		<b>3.57</b>	<b>2.90</b>
<b>PWD -All Average ( 74 Pump Stations)</b>		<b>3.72</b>	<b>3.47</b>

**Subprogram # 182 North Windham - Water Resources Reclaimed Water System**

**Division:** Wastewater – North Windham  
**Funding:** Bonds, R&R – Wastewater – Div. 55

**Manager:** Rodriguez , Paul  
**Priority:** Customer Driven

**Description:**

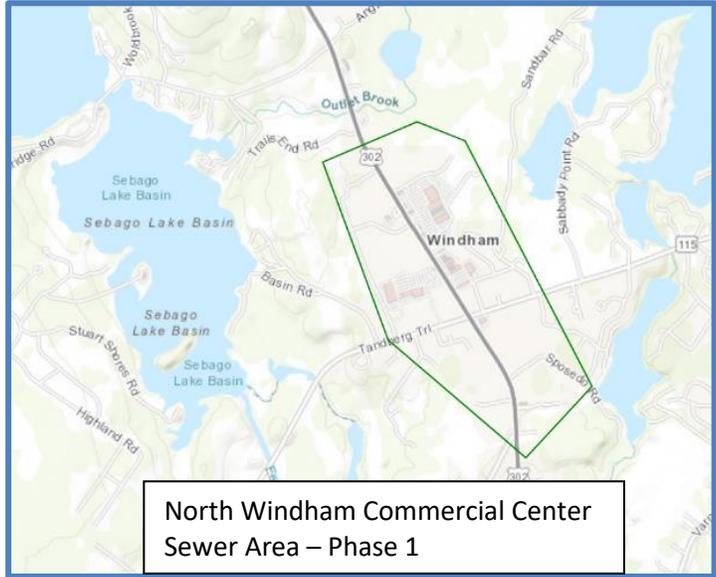
In recent years, the Town of Windham (“Town”) has redoubled its efforts to address wastewater treatment needs in the northern area. These efforts led to the development of a Comprehensive Wastewater Management Plan (CWWMP) published in May 2018. On May 26, 2020, the Town and PWD signed a Memorandum of Agreement to partner on the procurement of engineering services and construction of wastewater treatment facilities in North Windham to serve the “Phase 1 Area” which can be generally described as the commercial center along Route 302 north of River Rd and south of Chaffin Pond.

**Justification / Impact:**

Per the Memorandum of Agreement, the Town has determined that a wastewater treatment system is needed in the North Windham Area to mitigate groundwater pollution and would allow for more sustainable growth opportunities (North Windham System).

**History:**

Engineering Services have been procured to complete a Preliminary Design by the end of the 2021. *The 2018 CWWMP identified a preliminary budget of \$11,000,000; this will be revised pending the completion of the Preliminary Design.*



**Origin of the Subprogram:**

This Subprogram was created to address the goals established in the Memorandum of Agreement.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Bond SRF	PENDING				
WW Treatment	PENDING				
182\3241\North Windham WWTF	PENDING				
<b>Grand Total</b>	<b>PENDING</b>				

**Previous Years on CIP:**

N/A

**Procurement Issues:**

Engineering and contracting will be via standard competitive retention procedures.

**Subprogram # 29** **Westbrook CSO Abatement**

**Division:** Wastewater - Westbrook

**Manager:** Poulin, Charlene

**Funding:** Bond – Wastewater Div 62

**Priority:** Regulatory mandate

**Description:**

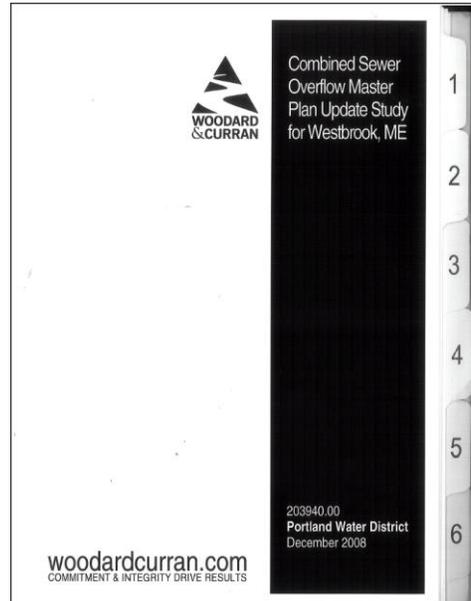
This project contemplates funding and programming the design and construction of projects recommended in a study that was completed by Woodard & Curran and Brown & Caldwell. The purpose of the study was to update the Westbrook CSO Master Plan.

**Justification / Impact:**

The District, City of Westbrook and the DEP agreed that an upgrade to the existing CSO Master Plan was favored over work previously scheduled for the sewer between Brown and King Streets. The Westbrook/Gorham/Windham WWTF license was renewed in 2006. Written into the new license was a requirement for the District to submit a CSO Master Plan update and abatement schedule on or before December 31, 2008. This was completed on time and submitted to DEP for their approval.

**History:**

King Street/Brown Street sewer work was put aside in lieu of updating the Westbrook CSO Master Plan. Project awarded to Woodard and Curran/Brown and Caldwell. Updated Master Plan due on or before 12/31/08 for Department review and approval.



**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Bond				\$3,200,000	
WW Collection & Pumping				\$3,200,000	
29\3231\PEND - CSO Storage Facility				\$3,200,000	
<b>Grand Total</b>				<b>\$3,200,000</b>	

Previous Years on CIP: 2000 to present

**Weir at Warren Ave CSO**



**Subprogram # 411 Westbrook WW Systems R&R**

**Division:** Wastewater - Westbrook  
**Funding:** R&R - Wastewater – Div. 62

**Manager:** Poulin, Charlene  
**Priority:** Routine replacement

**Description:**

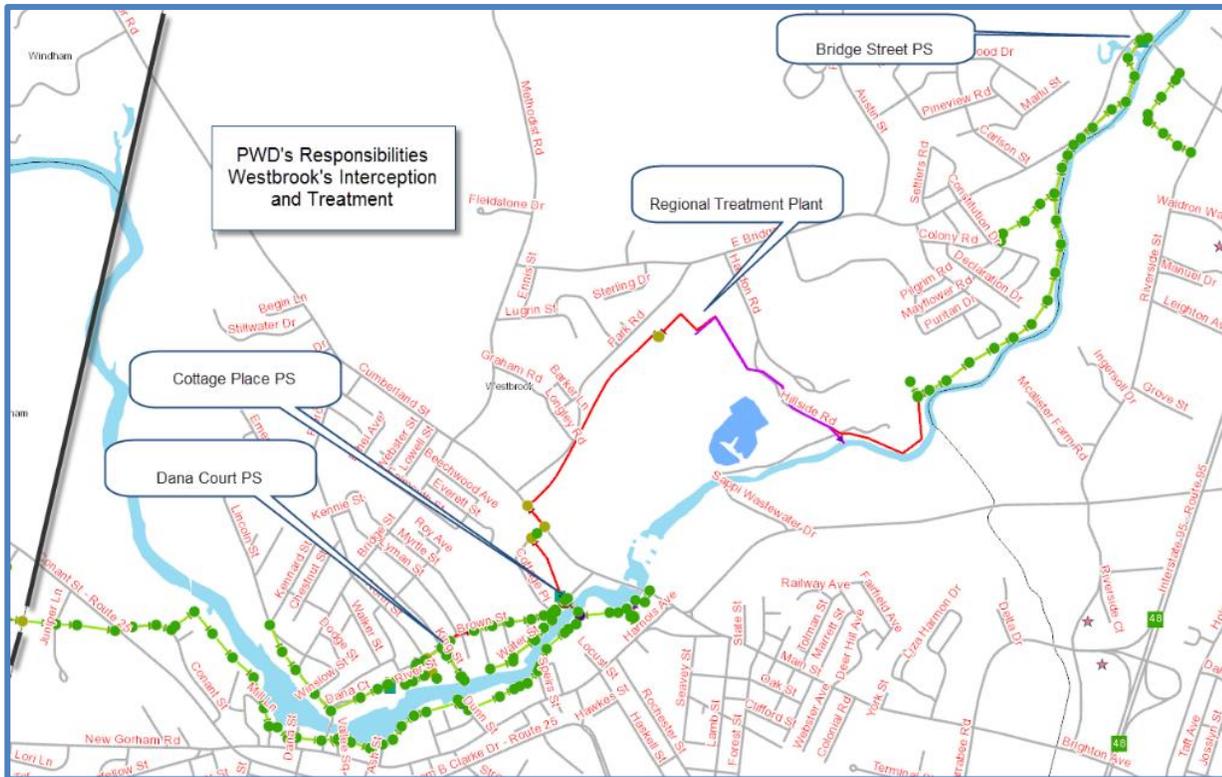
This project provides for the timely renewal of equipment associated with pump stations and the purchase of monitoring equipment for the interceptor system. Major pump stations have been recently upgraded but funds need to be available for replacement parts when necessary.

**Justification / Impact:**

An on-going study to upgrade the Westbrook CSO Master Plan will be complemented with the addition of a portable flow monitoring device.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Renewal and Replacement	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
WW Collection & Pumping	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
411\3134\Westbrook WW Systems R&R	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
<b>Grand Total</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>



**Condition Assessment – Westbrook Pump Stations**

## 2020 Westbrook Pump Station Report

Westbrook			
ID	Name	2020 rating	2014 rating
WEP43	Dana CT PS	4.61	2.90
WEP42	E. Bridge St. PS	3.79	3.85
WEP41	Cottage Place	3.66	3.93
<b>Westbrook Average</b>		<b>4.02</b>	<b>3.56</b>
<b>PWD -All Average ( 74 Pump Stations)</b>		<b>3.72</b>	<b>3.47</b>



East Bridge Pump Station



Cottage Street Pump Station



Dana Court Pump Station  
New dry pit submersible pumps installed in 2019

**Subprogram # 60** **Gorham WW Pump Stations - R&R**

**Division:** Wastewater - Gorham Village

**Manager:** Poulin, Charlene

**Funding:** Bond and R&R – Wastewater – Div. 61

**Priority:** Routine replacement

**Description:**

This is an ongoing project designed to maintain and improve Gorham wastewater pump stations. Modifications and upgrades will ensure adequate capacity, reliability and safety.

**Justification / Impact:**

Components of the older pump stations have reached their useful life and obsolete equipment should be replaced. Replacing this equipment before it fails completely reduces the amount spent on operating and maintaining the equipment.

**History:**

This planned renewal and replacement will assist operations in moving toward a goal of performing more predictive and preventive maintenance instead of emergency maintenance.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
<b>Bond</b>		\$180,000			
WW Collection & Pumping		\$180,000			
60\3178\Gateway Commons PS Upgrades		\$85,000			
60\3179\Park South PS Upgrades		\$95,000			
<b>Renewal and Replacement</b>	\$20,000	\$170,000	\$20,000	\$20,000	\$20,000
WW Collection & Pumping	\$20,000	\$170,000	\$20,000	\$20,000	\$20,000
60\3137\Gorham WW Pump Station - R&R	\$20,000	\$20,000	\$20,000	\$20,000	\$20,000
60\3180\Briarwood PS Telemetry Upgrade		\$75,000			
60\3181\Meadowland PS Telemetry Upgrade		\$75,000			
<b>Grand Total</b>	<b>\$20,000</b>	<b>\$350,000</b>	<b>\$20,000</b>	<b>\$20,000</b>	<b>\$20,000</b>

**Previous Years on CIP:**

2000 - present

**Procurement Issues:**

Primarily staff labor for installation using standard parts procured competitively.



**2020 CIP 60, 43 Project #3212** Little River Bridge Replacement – Force Main and Water Main replacement in conjunction with the MDOT replacement of the bridge

New 12” insulated bridge crossing water main (left)

Map showing existing 8” force main and 12” water (right)



## Condition Assessment – Gorham Pump Stations

### 2020 Gorham Pump Station Report

Gorham			
ID	Name	2020 rating	2014 rating
GOP50	Canterbury Pines	4.71	3.54
GOP51	Gateway Commons	4.01	3.83
GOP45	University	4.00	3.95
GOP47	Southwoods	4.00	3.63
GOP55	Little River	4.00	4.08
GOP56	Mallison	4.00	4.06
GOP57	Old Dynamite	4.00	4.96
GOP58	Olde Canal	4.00	4.03
GOP59	Tink Drive	4.00	4.93
GOP41	Tow Path	3.97	
GOP52	Meadowland (2023 proposed)	3.92	3.72
GOP54	Heartwood	3.92	3.81
GOP46	Glenwood	3.76	3.59
GOP48	Briarwood (2023 proposed)	3.52	3.78
GOP53	Park South (2023 proposed)	3.23	3.98
<b>Gorham Average</b>		<b>3.94</b>	<b>3.98</b>
<b>PWD -All Average ( 74 Pump Stations)</b>		<b>3.72</b>	<b>3.47</b>

**Subprogram # 416 Westbrooke Gorham Windham Regional WWTF**

**Division:** Wastewater - Joint Westbrook  
**Funding:** Bonds, R&R – Wastewater- Div. 64

**Manager:** Rodriguez, Paul  
**Priority:** Upgrade obsolete facility

**Description:**

Provide for plant upgrades required to continue to meet regulatory and operational requirements and for the timely routine replacement of equipment nearing the end of its service life. The main focus of the proposed projects is to improve plant performance and efficiency.

**Justification / Impact:**

Physical assets require scheduled maintenance and eventual replacement. Planned upgrades also include instrumentation and control in accordance with current industry practice and provide enhanced automation, monitoring and control of the treatment processes. Regulatory requirements are continuously revised and updated by the EPA and administered by the Maine Department of Environmental Protection. This account provides for the equipment replacement and system upgrades necessary to continue to meet regulatory and operational requirements.



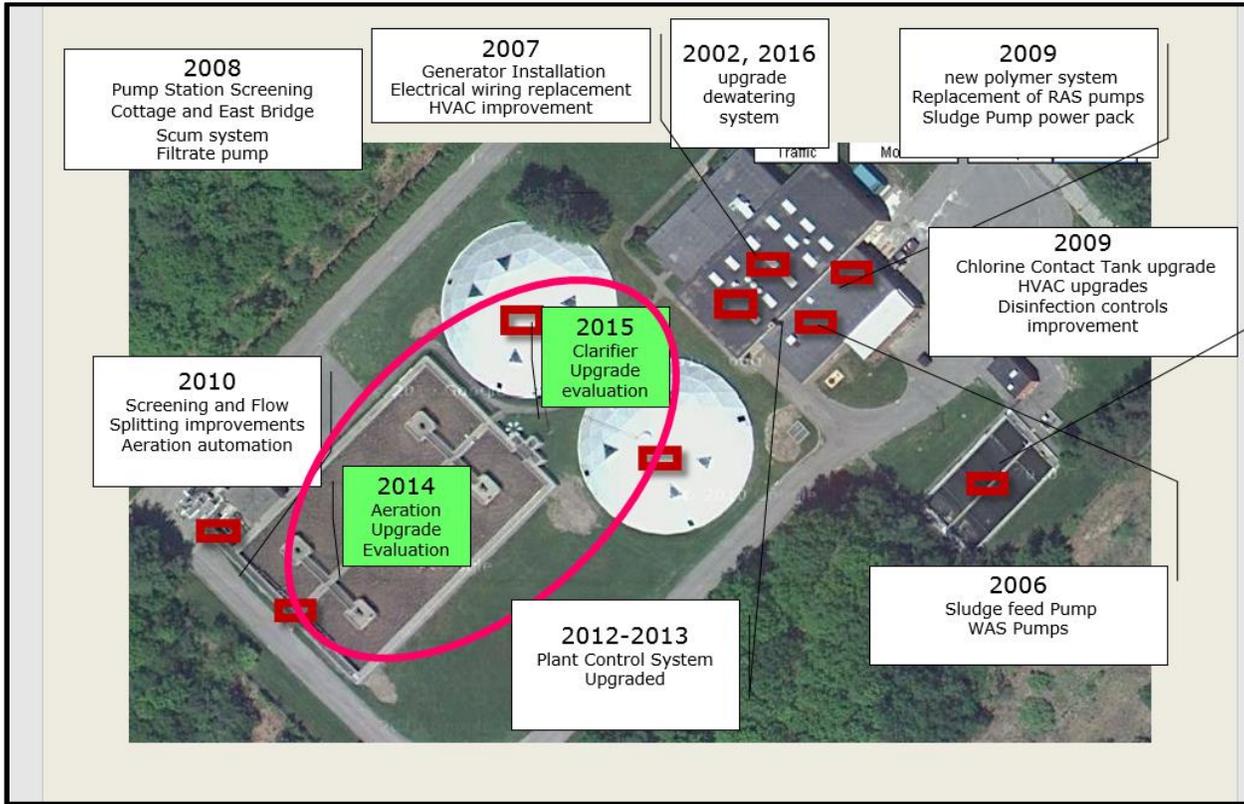
**History:**

To meet the goals of this subprogram the District is continuously engaged in the Capital Improvement Program Process described in the Introduction of the Capital Expenditures section. Recent planning and design efforts include the Aeration System Alternatives Analysis (2015), the Secondary Clarifier Condition Assessment (2016), and the Aeration and Secondary Clarification Upgrade Design (2019).

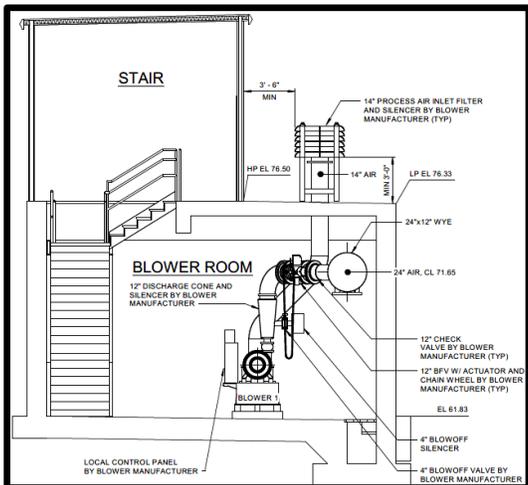
**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
<b>Bond</b>			\$750,000	\$550,000	\$2,000,000
<b>WW Treatment</b>			\$750,000	\$550,000	\$2,000,000
416\3166\Process Area Ventilation Upgrades			\$750,000		
416\3198\WAS and GBT System Upgrade/Rehab				\$350,000	
416\3232\Septage Screening Facilities				\$200,000	\$2,000,000
<b>Renewal and Replacement</b>	\$150,000	\$65,000	\$450,000	\$150,000	\$125,000
<b>WW Treatment</b>	\$150,000	\$65,000	\$450,000	\$150,000	\$125,000
416\3132\Westbrooke Gorham Windham WWTF R&R	\$50,000	\$50,000	\$50,000		
416\3159\Plant Water System Rehab/Controls					\$125,000
416\3190\Access Road and Parking Lot Resurfacing		\$15,000	\$400,000		
416\3191\TWAS Mixing System Replacement				\$150,000	
416\3247\Locker Room Renovation	\$100,000				
<b>Grand Total</b>	<b>\$150,000</b>	<b>\$65,000</b>	<b>\$1,200,000</b>	<b>\$700,000</b>	<b>\$2,125,000</b>

### Subprogram # 416 Westbrook Gorham Windham Regional WWTF



**CIP 2020, Subprogram #416, Project # 3023: \$11,250,000** - Westbrook aeration and secondary clarifier upgrade. Construction Started in 2021 with an anticipated two year construction duration. To the left is a diagram of the below grade aeration blower building.



## Portland Wastewater

### East End Treatment Plant

PWD has completed a number of significant upgrade projects to key systems at the East End Wastewater Treatment Facility in recent years, including the following

- Aeration (2015)
- Sludge Dewatering (2011)
- Installation of a second CSO rated screen in the headworks (2010)
- Addition of a second waste activated sludge thickener, enclosed for odor control (2015)
- Building envelope improvements including roofing and windows (2016-2017)
- Addition of a screenings wash press (2014)
- Rehabilitation of the grit removal equipment and piping (2017-2019)
- Replacement of the sodium hypochlorite storage tanks and piping (2019)
- Overhaul of the main odor control fan OCF-1 (2019)
- HVAC upgrades to the dewatering and chemical handling areas (2021)

In 2015, upgrade of the aeration system began to expand the system's capability to manage the spikes in pollutant loading to the treatment plant while exercising regular process control to better manage the performance of the treatment system. Since substantial completion in 2017, the upgrade has had a significant positive impact on the activated sludge system by promoting good settling, reducing odors, and enabling a significant amount of nitrogen management. The project was awarded a grant from Efficiency Maine for energy efficient design.

In 2015-2016, evaluations of the plant's electrical and HVAC systems were completed and long term replacement programs were developed. In 2018 design of the EEWTF/Northeast PS Backup Power Upgrade began. Due to the purchase and sale agreement with Central Maine Power for installation of a substation and new primary feeders for the East End plant, this effort is recommended for combination with switchgear replacement which was also recommended as part of the electrical system evaluation. Design of power distribution upgrades at the plant including a new medium voltage loop and transformers and new main switchgear was completed in October 2020; construction is underway and anticipated to be complete by the end of 2022.

The third floor HVAC upgrade is under construction and final completion is expected by the end of summer 2021. Rehabilitation of primary clarifier sludge removal mechanism #3 was completed in 2018. Rehabilitation of mechanisms #1 and #2 were completed in the summer of 2021. Upgrades to the chlorine contact tank isolation gate actuators were completed in the spring of 2020. In the spring of 2019 overhaul of the main odor control system fan (OCF-1) was completed including installation of the spare fan impeller and replacement of all wear components.

The headworks channels were modified over the winter of 2020-2021 to include overflow bypass channels to handle influent flow in the event of a screening system failure. Replacement of the effluent flow meter is underway and expected to be complete by the end of 2021.



**2018 CIP 21 project 2046 –  
headworks flow handling  
modifications**

## Portland Wastewater (continued)

### Peaks Island Treatment Plant

In 2014, the District conducted a feasibility study of ultraviolet disinfection at the Peaks facility as a potential replacement of the batch chlorination/dechlorination process. The study concluded that UV disinfection would provide a cost effective alternative to chlorination while enhancing the plant's ability to disinfect during wet weather flows. The system was installed in 2015 and has been performing well.

In 2018, the District installed a control panel and associated lifting systems to facilitate sequencing batch reactor tank dewatering in a timely fashion for maintenance, inspection and repairs. Also in 2018, the District installed a ventilation system in the headworks along with carbon air purification. In the spring of 2019 the influent screen was replaced with a new combination screen/screenings washer-compactor.



**New Peaks Island Treatment Plant's Influent Screen Rotated out of the Channel for Inspection**

### Pump Stations

PWD has undertaken several significant upgrades to the Portland pumping systems in recent years. India Street was upgraded in 2008 to include self-cleaning wet wells, new pumps, and odor control. Upgrades to the Northeast pump station have included internal piping and Pumps 2, 3 and 4 in 2007-2008, Pump 1 replacement in 2017, and the addition of odor control in 2018.

Further modifications to the Northeast pump station are pending future CSO and storm water work planned by the City. CIP subprogram #70 outlines future plans for the remaining pump stations in the City. The full upgrade of the Baxter Boulevard Pump Station was delayed (only pumps, with the ability to be expanded, were replaced) to allow the City's plan to include possible upgrades to the flow capacity of the pump station. Thompson Point Pump Station and the associated force main were upgraded along with the Arcadia Pump Station in 2013.

Phase 1 of the Fore River Pump Station pumping system and controls upgrade is complete. Phase 2 of upgrades to the Fore River station are underway, including installation of a bypass connection and force main condition assessment. The phase 2 upgrades were completed in 2021 and included upgrade of the station's screening, electrical, and ventilation systems. Upgrade of the Baxter Blvd. Pump Station (CIP #70 project 3144) is underway and is expected to be complete in 2022; the project includes improvements to the station's power distribution system, electrical switchgear, piping, controls/telemetry, and provisions for station bypassing.

The City of Portland submitted a Tier III Long-Term Control Plan for the mitigation of CSO flows to Maine DEP in 2011. The plan includes a \$167 million plan over 15 years. This plan focuses on storage and dedicated wet weather systems at the East End WWTF in the later years of the plan. A 2-million gallon storage conduit along Baxter Blvd. and Payson Park was commissioned in 2013. Design and construction of the next two storage conduits is underway. These storage conduits are part of the City's collection system and are owned, operated, and maintained by the City. The treatment of flow from the storage conduits is coordinated with the City on an ongoing and regular basis.

The Portland City Council approved a \$3.1 million sewer expansion on Peaks Island. The project was managed, constructed, and financed by the District. The project was completed in 2014.

## Portland Wastewater (continued)

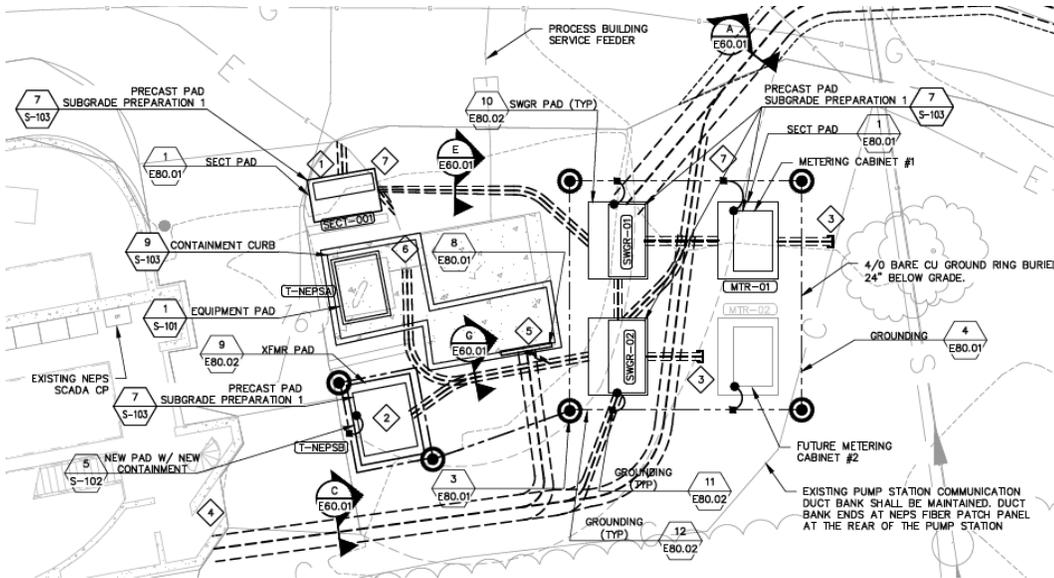
### Program Summary

	-2022-	-2023-	-2024-	-2025-	-2026-
SCADA & Technology				\$25,000	
WW Collection & Pumping	\$1,110,000	\$560,000	\$2,000,000	\$50,000	\$150,000
WW Treatment	\$6,125,000	\$5,475,000	\$8,365,000	\$4,080,000	\$1,520,000
<b>Grand Total</b>	<b>\$7,235,000</b>	<b>\$6,035,000</b>	<b>\$10,365,000</b>	<b>\$4,155,000</b>	<b>\$1,670,000</b>

### Financing Summary

	-2022-	-2023-	-2024-	-2025-	-2026-
Bond	\$910,000	\$1,350,000			
Bond SRF	\$5,100,000	\$3,550,000	\$10,170,000	\$3,050,000	\$1,375,000
Renewal and Replacment	\$1,225,000	\$1,135,000	\$195,000	\$1,105,000	\$295,000
<b>Grand Total</b>	<b>\$7,235,000</b>	<b>\$6,035,000</b>	<b>\$10,365,000</b>	<b>\$4,155,000</b>	<b>\$1,670,000</b>

2019 -2020 CIP 21 project 3014 East End Medium Voltage Power Distribution Upgrade – This project is currently under construction with an expected start-up date in 2022.



## Portland Wastewater (continued)

## Projects by Program

	-2022-	-2023-	-2024-	-2025-	-2026-
▫ SCADA & Technology				\$25,000	
177\3128\EEWWTF SCADA Server Replacement Program				\$25,000	
▫ WW Collection & Pumping	\$1,110,000	\$560,000	\$2,000,000	\$50,000	\$150,000
131\3162\Modeling and Flow Assessment	\$50,000				
423\3161\Stormwater Piping Rehabilitation		\$50,000			
423\3182\Torrington Point PS Upgrades					\$100,000
70\3006\Stroudwater PS Conversion to Submersible	\$510,000				
70\3135\Portland WW Pump Stations - R&R	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
70\3144\Baxter Blvd PS Upgrades Phase II			\$650,000		
70\3186\Westbrook St PS Upgrades	\$100,000				
70\3187\India St PS Generator Upgrade		\$300,000			
70\3205\Northeast PS Generator and Switchgear Replacement			\$1,300,000		
70\3254\ISPS Roof Rehabilitation		\$130,000			
70\3255\ISPS Landscaping		\$30,000			
70\3257\Baxter PS Forcemain Upgrade	\$400,000				
▫ WW Treatment	\$6,125,000	\$5,475,000	\$8,365,000	\$4,080,000	\$1,520,000
21\3009\Dewatering Odor Control Rehab and Expansion	\$100,000	\$950,000			
21\3020\Process Gate Automation	\$50,000	\$50,000	\$50,000		
21\3133\East End WWTF R&R	\$75,000	\$75,000	\$75,000		
21\3145\East End WWTP Paving		\$500,000			
21\3146\Gravity Belt Thickener Replacement				\$550,000	
21\3147\Secondary Clarifier Sludge Rake Replacement		\$500,000	\$7,320,000		
21\3148\Return Sludge Piping Replacement	\$200,000	\$2,000,000			
21\3149\HVAC Upgrades - Process Area				\$500,000	
21\3150\HVAC Upgrades - Tunnel and Pump Gallery		\$100,000	\$900,000		
21\3151\Influent Screen #2 and Headworks Conveyors		\$850,000			
21\3152\Primary Sludge Handling and Primary Gallery Upgrd	\$4,800,000				
21\3156\Clarifier Ventilation					\$1,375,000
21\3202\Thickened Sludge Storage and Mixing Rehab				\$500,000	
21\3204\Dewatering System Upgrade				\$2,500,000	
21\3237\Existing Standby Generator Replacement	\$600,000				
21\3248\Locker Room Renovation	\$125,000				
21\3249\Rotary Press Rehabilitation	\$125,000				
423\3131\Peaks Island R&R	\$20,000	\$20,000	\$20,000		
423\3193\Decanter and Mixer Upgrade, Tanks A and B	\$30,000	\$430,000			
423\3195\RDT Rehabilitation					\$30,000
423\3197\WAS Processing System Upgrade/Rehabilitation					\$115,000
423\3239\Sludge Handling Upgrades - Design				\$30,000	
<b>Grand Total</b>	<b>\$7,235,000</b>	<b>\$6,035,000</b>	<b>\$10,365,000</b>	<b>\$4,155,000</b>	<b>\$1,670,000</b>

**Subprogram # 131** **Portland CSO Mitigation**

**Division:** Wastewater - Portland  
**Funding:** R&R – Wastewater – Div 57

**Manager:** Rodriguez, Paul  
**Priority:** Regulatory mandate

PWD owns and operates 21 of the 31 licensed CSO outfalls in the City of Portland. Upstream mitigation of CSO flows is primarily the responsibility of the City of Portland through their ongoing Long-Term Control Plan, currently in the third tier. Permanent monitors operated by PWD and located at critical sites allow for the continuous monitoring of nearly all outfalls. This provides accurate measurement of flow totals, alarming to prevent dry weather overflows, and for the measurement and verification of ongoing mitigation efforts by the City of Portland. It is critical that we have real time monitoring at CSO sites. This monitoring allows us to proactively address potential dry weather events as well as increasing our ability to implement operational measures based on system performance.

**Justification / Impact:**

In 2007 PWD started to install ADS Flowshark Meters at 7 key critical sites in Portland. By 2009 sixteen (16) were installed in Portland that monitor continuous flow and provide real time data and alarming at CSO sites. Due to technological changes and cellular capabilities, the current ADS Flowshark monitors have started to reach their expected life span. The benefit to the real time monitors has been valuable to both the City and to PWD. With real time monitoring, reduction of CSO events due to projects can be quantified. The reliability of the data is solid with a 98% uptime of the CSO meters during rain events allowing us to rely on actual data for CSO reporting. Over the past eight years, staff has been able to prevent Dry Weather Overflows and respond in a quick manner due to the alarming capabilities.

**History:**

All except for two CSO’s are real time monitored by either ADS Environmental or Flow Assessment since 2010. Minor evaluation of India Street Tide gate was performed by Johnson and Jordan in 2013.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Renewal and Replacement	\$50,000				
WW Collection & Pumping	\$50,000				
131\3162\Modeling and Flow Assessment	\$50,000				
<b>Grand Total</b>	<b>\$50,000</b>				

Previous Years on CIP: 2007



**2019 CIP 131 -Tide Gate Replacement, India St. and Northeast Pump Stations:**  
 Currently under construction, completed summer of 2021.

**Subprogram # 70****Portland WW Pump Stations - R&R****Division:** Wastewater - Portland**Manager:** Poulin, Charlene**Funding:** R&R, Bonds – Wastewater- Div. 57**Priority:** Routine replacement**Description:**

This program provides for a planned approach to the replacement of obsolete equipment in the Portland wastewater pump stations. Few improvements have taken place during the 25 years of operation. Pumps have to be upgraded, screens reconsidered and control systems revamped.

**Justification / Impact:**

The pump stations have reached the end of their useful design life and obsolete equipment must be replaced. Continued attention to the pump stations will allow for a predictive approach to maintenance while ensuring operational optimization and reliability.

**History:**

This program is based on the Portland Pump Station CPE performed by Wright-Pierce and contemplates improvements with funding from the R&R accounts.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
<b>Bond</b>	\$910,000				
WW Collection & Pumping	\$910,000				
70\3006\Stroudwater PS Conversion to Submersible	\$510,000				
70\3257\Baxter PS Forcemain Upgrade	\$400,000				
<b>Bond SRF</b>			\$1,950,000		
WW Collection & Pumping			\$1,950,000		
70\3144\Baxter Blvd PS Upgrades Phase II			\$650,000		
70\3205\Northeast PS Generator and Switchgear					
<b>Replacement</b>			\$1,300,000		
<b>Renewal and Replacement</b>	\$150,000	\$510,000	\$50,000	\$50,000	\$50,000
WW Collection & Pumping	\$150,000	\$510,000	\$50,000	\$50,000	\$50,000
70\3135\Portland WW Pump Stations - R&R	\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
70\3186\Westbrook St PS Upgrades	\$100,000				
70\3187\India St PS Generator Upgrade		\$300,000			
70\3254\ISPS Roof Rehabilitation		\$130,000			
70\3255\ISPS Landscaping		\$30,000			
<b>Grand Total</b>	<b>\$1,060,000</b>	<b>\$510,000</b>	<b>\$2,000,000</b>	<b>\$50,000</b>	<b>\$50,000</b>

**2020 CIP 70-3143-Baxter Boulevard PS Upgrades**

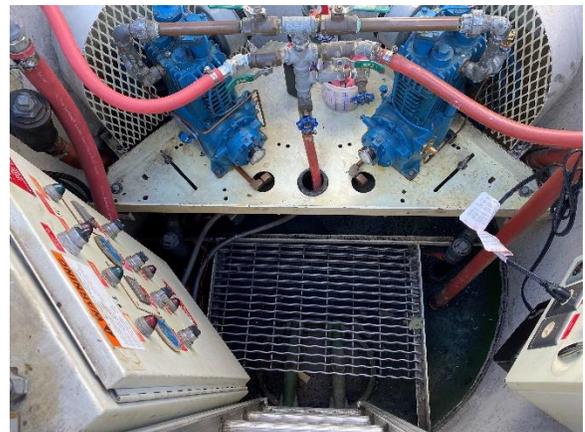
\$2,000,000 project is underway with an expected completion date of late 2022. Below the contractor is lowering a new splitter box for the new electrical service



## Condition Assessment – Portland Pump Stations

### 2020 Portland Pump Station Report

Portland /Peaks Island			
ID	Name	2020 rating	2014 rating
POP04	Great Pond Pump Station	4.79	5.0
POP01	Centennial	4.57	2.59
POP03	Rye Field	3.79	3.66
POP02	Torrington Point	3.70	3.26
POP43	Fore River	4.44	2.35
POP45	Thompson's Point	3.90	4.33
POP46	Arcadia Street	3.84	4.41
POP42	India Street	3.79	3.95
POP48	Westbrook Street (2022 proposed)	3.69	3.65
POP41	Northeast	3.21	2.89
POP47	Stroudwater (2022 proposed)	2.97	3.34
POP44	Baxter Boulevard (2020 under const.)	2.73	3.11
POP49	Garrison Street (2021 under design)	1.63	2.65
POP50	Congress Street (2021 under design)	1.63	2.80
<b>Portland Average</b>		<b>3.47</b>	<b>3.43</b>
<b>PWD -All Average ( 74 Pump Stations)</b>		<b>3.72</b>	<b>3.47</b>



**Garrison Street Pump Station - Controls / Pneumatics Pumps-**  
 2021 CIP project #3184 under design to replace ejector style  
 pump station with submersible pump station

**Subprogram # 21 East End WWTF Upgrade**

**Division:** Wastewater – Portland  
**Funding:** Bonds & R&R– Wastewater – Div.57

**Manager:** Rodriguez, Paul  
**Priority:** Upgrade obsolete facility

**Description:**

Provide for plant upgrades required to continue to meet regulatory and operational requirements and for the timely routine replacement of equipment nearing the end of its service life. The main focus of the proposed projects to improve plant performance and efficiency.

**Justification / Impact:**

Physical assets require scheduled maintenance and eventual replacement. Planned upgrades also include instrumentation and control in accordance with current industry practice and provide enhanced automation, monitoring and control of the treatment processes. Regulatory requirements are continuously revised and updated by the EPA and administered by the Maine Department of Environmental Protection. This account provides for the equipment replacement and system upgrades necessary to continue to meet regulatory and operational requirements.

**History:**

This implementation program began with the Woodard & Curran CPE completed in 1998. In recent years, several system assessments have been conducted to support continued efforts to meet the objectives of this subprogram, including influent channel flow diversion, secondary clarifier CCT isolation, secondary clarification and sludge withdrawal, return activated sludge piping replacement, and primary gallery electrical systems. The largest recent investment was an \$11M upgrade of the aeration system.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
<b>Bond</b>		\$1,350,000			
WW Treatment		\$1,350,000			
21\3145\East End WWTP Paving		\$500,000			
21\3151\Influent Screen #2 and Headworks Conveyors		\$850,000			
<b>Bond SRF</b>	\$5,100,000	\$3,550,000	\$8,220,000	\$3,050,000	\$1,375,000
WW Treatment	\$5,100,000	\$3,550,000	\$8,220,000	\$3,050,000	\$1,375,000
21\3009\Dewatering Odor Control Rehab and Expansion	\$100,000	\$950,000			
21\3146\Gravity Belt Thickener Replacement				\$550,000	
21\3147\Secondary Clarifier Sludge Rake Replacement		\$500,000	\$7,320,000		
21\3148\Return Sludge Piping Replacement	\$200,000	\$2,000,000			
21\3150\HVAC Upgrades - Tunnel and Pump Gallery		\$100,000	\$900,000		
21\3152\Primary Sludge Handling and Primary Gallery	\$4,800,000				
21\3156\Clarifier Ventilation					\$1,375,000
21\3204\Dewatering System Upgrade				\$2,500,000	
<b>Renewal and Replacement</b>	\$975,000	\$125,000	\$125,000	\$1,000,000	
WW Treatment	\$975,000	\$125,000	\$125,000	\$1,000,000	
21\3020\Process Gate Automation	\$50,000	\$50,000	\$50,000		
21\3133\East End WWTF R&R	\$75,000	\$75,000	\$75,000		
21\3149\HVAC Upgrades - Process Area				\$500,000	
21\3202\Thickened Sludge Storage and Mixing Rehab				\$500,000	
21\3237\Existing Standby Generator Replacement	\$600,000				
21\3248\Locker Room Renovation	\$125,000				
21\3249\Rotary Press Rehabilitation	\$125,000				
<b>Grand Total</b>	<b>\$6,075,000</b>	<b>\$5,025,000</b>	<b>\$8,345,000</b>	<b>\$4,050,000</b>	<b>\$1,375,000</b>

**Previous Years on CIP:** 1999 to present

**Related Projects:**

**Procurement Issues:** RFP for engineering services. Construction services will be low bid.

**Subprogram # 423 Peaks Island WW Treatment and Systems**

**Division:** Wastewater - Peaks  
**Funding:** R & R - Wastewater

**Manager:** Rodriguez, Paul  
**Priority:** Routine replacement

**Description:**

This account will provide for timely routine replacement of equipment at the Peaks Island Treatment Plant and pump stations.

**Justification / Impact:**

Physical assets require scheduled maintenance and eventual replacement. This project provides funding for the efficient and timely replacement of equipment using routine and replacement funds.

**History:**

This program has been used at most PWD wastewater systems in the past.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Renewal and Replacement	\$50,000	\$500,000	\$20,000	\$30,000	\$245,000
WW Collection & Pumping		\$50,000			\$100,000
423\3161\Stormwater Piping Rehabilitation		\$50,000			
423\3182\Torrington Point PS Upgrades					\$100,000
WW Treatment	\$50,000	\$450,000	\$20,000	\$30,000	\$145,000
423\3131\Peaks Island R&R	\$20,000	\$20,000	\$20,000		
423\3193\Decanter and Mixer Upgrade, Tanks A and B	\$30,000	\$430,000			
423\3195\RDT Rehabilitation					\$30,000
423\3197\WAS Processing System Upgrade/Rehabilitation					\$115,000
423\3239\Sludge Handling Upgrades - Design				\$30,000	
<b>Grand Total</b>	<b>\$50,000</b>	<b>\$500,000</b>	<b>\$20,000</b>	<b>\$30,000</b>	<b>\$245,000</b>

Previous Years on CIP: 2007 - present

**Peaks Island Treatment Plant – Built 1994**



## Wastewater – Multi-fund Program

### SCADA and Process Control Plan

In the early part of this decade, the District began installing Supervisory Control and Data Acquisition (SCADA) equipment throughout its service area. The goal was to bring all critical alarming back into the District. Since then, standards have developed and SCADA is in place at most all of our installations. The next step is to meet our goal of bringing all wastewater related SCADA information into a single site located at the East End WWTF in Portland. This will allow us to monitor each wastewater facility at a single wastewater location. The construction of the Central Control Center at the East End WWTF began in 2010. During this time, the Westbrook/Gorham/Windham WWTF was connected to the Central Control Center directly, improving the ability to monitor and control this facility. Subsequently, Peaks Island WWTF and Cape Elizabeth WWTF automation and control system improvements occurred allowing for their connection to the Central Control Center.

Future programming routines will allow staff to interact with remote sites from a central location. In the end, our goal is to have operation staff in position to acknowledge alarms, trouble shoot mechanical problems and make process adjustments to four wastewater plants and better than 70 pump stations without having to call in additional staff.

CIP subprogram #177 outlines much of the work that is needed to complete the long-range SCADA plan. In 2020, Phase 2 of the SCADA Radio Modem Replacement Project is underway (CIP #177, project 3126) with completion expected 2<sup>nd</sup> Quarter 2022. This project will replace 17-year old radios, Programmable Logic Controllers (PLC) and antennas and will therefore provide more reliable networks.



**The SCADA panel for the newly installed Great Pond Pump Station for the Peaks Island Sewer Extension Project**

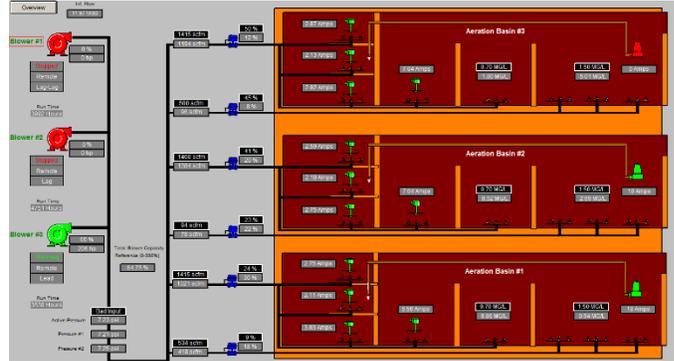
**Subprogram # 177 SCADA/Process Control - Wastewater**

**Division:** Wastewater - Portland  
**Funding:** Bond/R & R - Wastewater

**Manager:** Pellerin, Greg  
**Priority:** Upgrade obsolete facility

**Description:**

The program supports all 80 wastewater sites across the District in upgrading and replacing the existing Supervisory Control and Data Acquisition (SCADA) equipment. The work needed is replacement of hardware and software to be compatible to the District SCADA standards and provide for increased automation of wastewater systems and treatment. Programmable Logic Controllers (PLC) have been replaced across the District to meet the new standards and remove outdated, non-maintainable equipment.



**Justification / Impact:**

The benefit of this program is to increase the automation and reduce the staff hours needed to perform routine activities for the systems and treatment plants across the District.

In 2017, the new aeration system went on line. The system is fully automated and is represented in the District's SCADA system.

**History:**

The District started changing out the system in 2003 by replacing the existing 20 year-old system across the six wastewater communities and installing new SCADA equipment where it did not exist. All systems have been retrofitted or replaced but more automation of these systems will continue.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
<b>Renewal and Replacement</b>				\$25,000	
SCADA & Technology				\$25,000	
177\3128\EEWWTF SCADA Server Replacement Program				\$25,000	
<b>Grand Total</b>				<b>\$25,000</b>	

**Previous Years on CIP:** 2003 to present  
**Related Projects:** Subprogram #110

## Water and Wastewater – Multi-fund Program

The projects below are being completed and benefits multiple water and wastewater funds and are allocated to the respective fund based on the relative use of the asset.

### Program Summary

	-2022-	-2023-	-2024-	-2025-	-2026-
SCADA & Technology	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
Vehicle/Equipment Replacement	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
Water Distribution System	\$400,000	\$400,000	\$400,000	\$400,000	\$2,000,000
Water Facilities Program	\$860,000	\$550,000	\$1,425,000	\$300,000	\$300,000
<b>Grand Total</b>	<b>\$1,910,000</b>	<b>\$1,600,000</b>	<b>\$2,475,000</b>	<b>\$1,350,000</b>	<b>\$2,950,000</b>

### Projects by Program

	-2022-	-2023-	-2024-	-2025-	-2026-
▣ SCADA & Technology	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
50\3038\Technology Upgrade and Replacement	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
▣ Vehicle/Equipment Replacement	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
326\3041\Vehicle and Equipment Replacement	\$250,000	\$400,000	\$400,000	\$400,000	\$400,000
326\3042\Replace Lake Patrol Boat	\$150,000				
▣ Water Distribution System	\$400,000	\$400,000	\$400,000	\$400,000	\$2,000,000
63\3046\Meter Replacement and Leak Detection	\$350,000	\$400,000	\$400,000	\$400,000	\$2,000,000
63\3250\Master Meter Plan	\$50,000				
▣ Water Facilities Program	\$860,000	\$550,000	\$1,425,000	\$300,000	\$300,000
68\3050\Facility Upgrades	\$50,000	\$50,000	\$50,000	\$300,000	\$300,000
68\3053\Douglass Street Roof replacement - Phase 3 of 3	\$280,000				
68\3054\HVAC Improvements -Phases 1, 2, 3, 4	\$500,000	\$425,000	\$1,300,000		
68\3216\Stockroom Platform Demo	\$30,000				
68\3217\SMT Renovation/Carpet/Lighting				\$75,000	
68\3218\Renovation of Finance			\$75,000		
<b>Grand Total</b>	<b>\$1,910,000</b>	<b>\$1,600,000</b>	<b>\$2,475,000</b>	<b>\$1,350,000</b>	<b>\$2,950,000</b>

### Financing Summary

	-2022-	-2023-	-2024-	-2025-	-2026-
Bond	\$500,000	\$425,000	\$1,300,000	\$300,000	\$1,900,000
Renewal and Replacment	\$1,410,000	\$1,175,000	\$1,175,000	\$1,050,000	\$1,050,000
<b>Grand Total</b>	<b>\$1,910,000</b>	<b>\$1,600,000</b>	<b>\$2,475,000</b>	<b>\$1,350,000</b>	<b>\$2,950,000</b>

**Subprogram # 50** **Technology Upgrade and Replacement**

**Division:** Allocation  
**Funding:** R & R – Water- Div. 10

**Manager:** Davis, Chad  
**Priority:** Routine replacement

**Description:**

PWD has made a commitment to using technology as a means of operating more efficiently. This project is therefore an ongoing one and crosses all department lines and major processes. The focus is on establishing and maintaining a stable reliable network and databases to support PWD decision making, planning, budgeting and daily work activities. The project must also plan for growth and adaptation as new technology solutions become feasible.

**Justification / Impact:**

While economic payback can be demonstrated for many of the line items in this project, replacement of obsolete facilities is also a factor in technology investment. A fast, secure, reliable network and databases impacts PWD’s ability to be proactive and competitive. Better available information that is timely supports a customer-centric business perspective.

**History:**

Technology infusion into PWD began anew after an EMA study in 1996 recommended the use of technology to reduce a competitive gap, improve customer service and operating efficiency. Early on a technology master plan was developed as a guide for our investments. Key development work focused on building a stable reliable network infrastructure, acquiring best fit software solutions and populating the associated databases and documenting standard operating procedures. Most of the work was done in team environments to ensure the technology solution met the needs of the target PWD employee group. The PWD network consists of a 206 PC/Laptop/Thin Client wide area network supported by 39 servers housing various applications and data sources supporting asset management, customer billing, financials, GIS, voice mail, email, and VoIP phone. Our network also supports over fifty employees in the field via a wireless data network. Technology advances and cost savings continue to influence the design and delivery of information to our employees and customers.

**Budget Summary:**

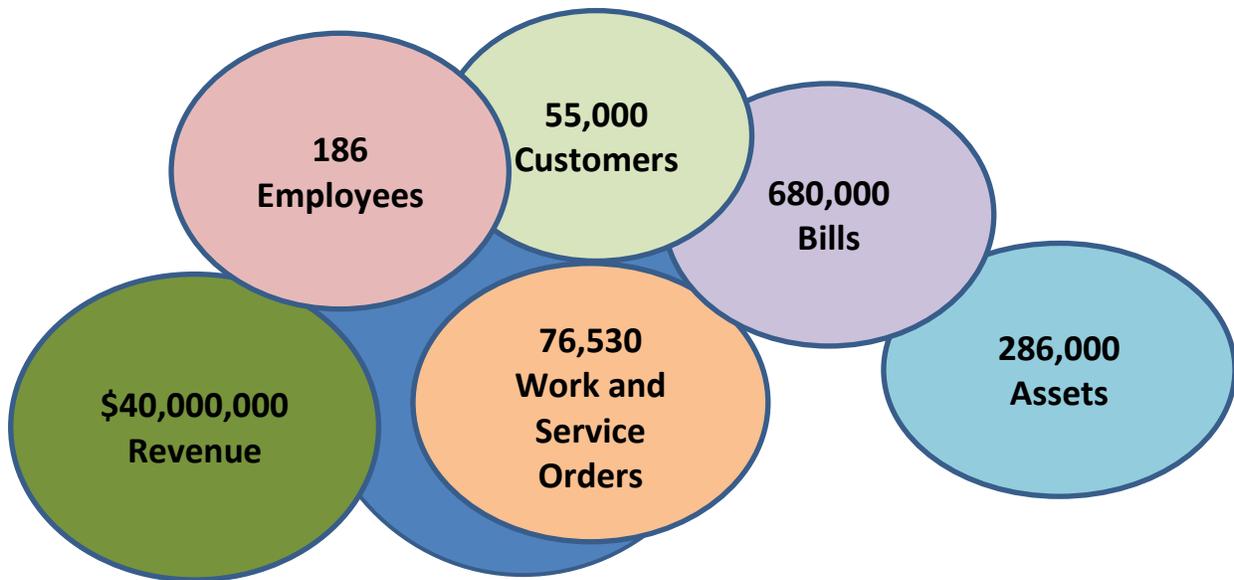
PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Renewal and Replacement	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
SCADA & Technology	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
750\3038\Technology Upgrade and Replacement	\$250,000	\$250,000	\$250,000	\$250,000	\$250,000
<b>Grand Total</b>	<b>\$250,000</b>	<b>\$250,000</b>	<b>\$250,000</b>	<b>\$250,000</b>	<b>\$250,000</b>

**Previous Years on CIP:** All since 1996

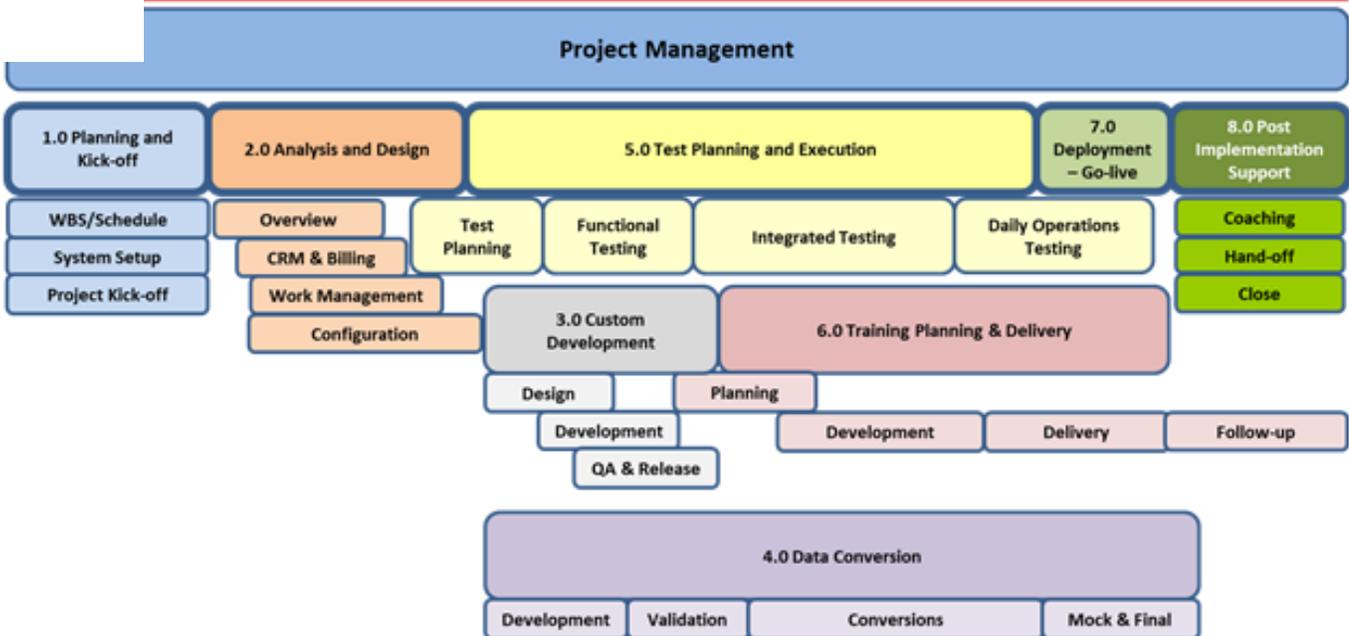
**Related Projects:**

**Procurement Issues:** Standard procurement procedures are used for major hardware, software and consulting purchases.

# Cayenta Billing and Central Square Asset Management Systems (previously known as the ABC project)



## *Cayenta* Implementation Methodology



This 2018 project, CIP #50 project 2542 – Hansen System Replacement (Billing and Customer Relations & Computerized Maintenance Mangement Systems) \$4,850,000 went live on October 15, 2021.

**Subprogram # 326** **Vehicle and Equipment Replacement**

**Division:** Allocation  
**Funding:** R & R – Water- Div. 10

**Manager:** Hudak, Joshua  
**Priority:** Routine replacement

**Description:**

This project is to replace a portion of the District's Vehicle and Equipment fleet each year. This year's review included the evaluation of all of the vehicles and equipment which have met or exceeded the trade criteria. In reviewing the fleet, the replacement cost is between \$4,500,000 and \$5,000,000.

**Justification / Impact:**

The rolling stock and construction equipment fleet are essential to the District's "mission to provide our customers with quality water, wastewater and related environmental services." Maintaining a reliable fleet of vehicles and equipment enables staff to fulfill the mission with safety, efficiency and timeliness. Worker safety, efficient operations and customer satisfaction are the basic benefits of maintaining a sound vehicle and equipment inventory.

**History:**

The Asset Management Department conducts an annual evaluation of major pieces of equipment and vehicles to determine our annual replacement needs. The various trade criteria are also reviewed to assure that they are appropriate. Based on the age and use of the fleet, projections of future annual costs are included in the five-year plan. These projections are re-reviewed each year to develop a minimum replacement program for the current year. Several major pieces of equipment will need to be replaced in the next two to four years.



**Origin of the Subprogram:**

Annual review and replacement of vehicles and equipment is a basic operating need of any geographically dispersed utility.

**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Renewal and Replacement	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
Vehicle/Equipment Replacement	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
326\3041\Vehicle and Equipment Replacement	\$250,000	\$400,000	\$400,000	\$400,000	\$400,000
326\3042\Replace Lake Patrol Boat	\$150,000				
<b>Grand Total</b>	<b>\$400,000</b>	<b>\$400,000</b>	<b>\$400,000</b>	<b>\$400,000</b>	<b>\$400,000</b>

**Previous Years on CIP:**

All

**Procurement Issues:**

Specifications are developed and proposals are solicited from approximately thirty vehicle and equipment dealers. Purchases are made on the basis of price and other criteria which lead to lowest life cycle cost.

## 2022 Annual Vehicle and Equipment Estimated Replacement Cost and Trade-in values

2022 Annual Vehicle and Equipment Replacement		Estimated Cost
2022 Security Boat FBT22010	ASSET PURCHASE	\$150,000
Security Boat Auction FBT02010	TRADE	(\$18,000)
VEH22010- 4x4 PU	ASSET PURCHASE	\$39,000
VEH10010- Foremans PU	TRADE	(\$3,500)
VEH22020-Mid Sized SUV	ASSET PURCHASE	\$25,000
VEH12040- Ford Escape	TRADE	(\$4,000)
VEH22030-VEH22040- Vans	ASSET PURCHASE	\$60,000
VEH14010-VEH14020-Vans	TRADE	(\$12,000)
VEH22050- 3/4 Ton PU w/ Cap	ASSET PURCHASE	\$35,000
VEH14050- Van	TRADE	(\$6,000)
VEH22060- TBD	ASSET PURCHASE	\$35,000
VEH16010- Chevy Colorado	TRADE	(\$5,000)
VEH22070- Electric SUV	ASSET PURCHASE	\$45,000
VEH14100- Ford Transit	TRADE	(\$4,500)
ESQ22710-Loader(used?)	ASSET PURCHASE	\$80,000
ESQ05710-ESQ10710-Loaders	TRADE	(\$40,000)
	ASSET PURCHASE	
	TRADE	
Vehicle Set Up Costs	SET UP	\$20,000
	<b>Total CIP Request</b>	<b>\$396,000</b>

**Subprogram # 63** **Meter Replacement and Leak Detection**

**Division:** Allocation  
**Funding:** R & R – Water - Div. 10

**Manager:** Wallace, Jim  
**Priority:** Routine replacement

**Description:**

This work includes the cost to maintain the Long Service Meter Change program, and replacement of damaged meters. It also includes the purchasing of leak detection and monitoring equipment. The District completed a change out of all of its 50,000 meters to radio read system in 2009. The meters and batteries are expected to last 20 years for the smaller meters and less for the larger meters.

**Justification / Impact:**

This is a required program to meet PUC requirements and maintain accurate billing of customer accounts and account for lost water. Since long service meters typically under estimate the actual water flow, the Long Service Meter Change program is needed to ensure that the District receives all the revenue to which it is entitled.

**History:**

New terms and conditions have recently been instituted to increase the long service interval from 15 to 20 years.

**Origin of the Subprogram:**

These costs do not reflect the value of meters and radio reading devices that are contributed by customers.

**Budget Summary:**

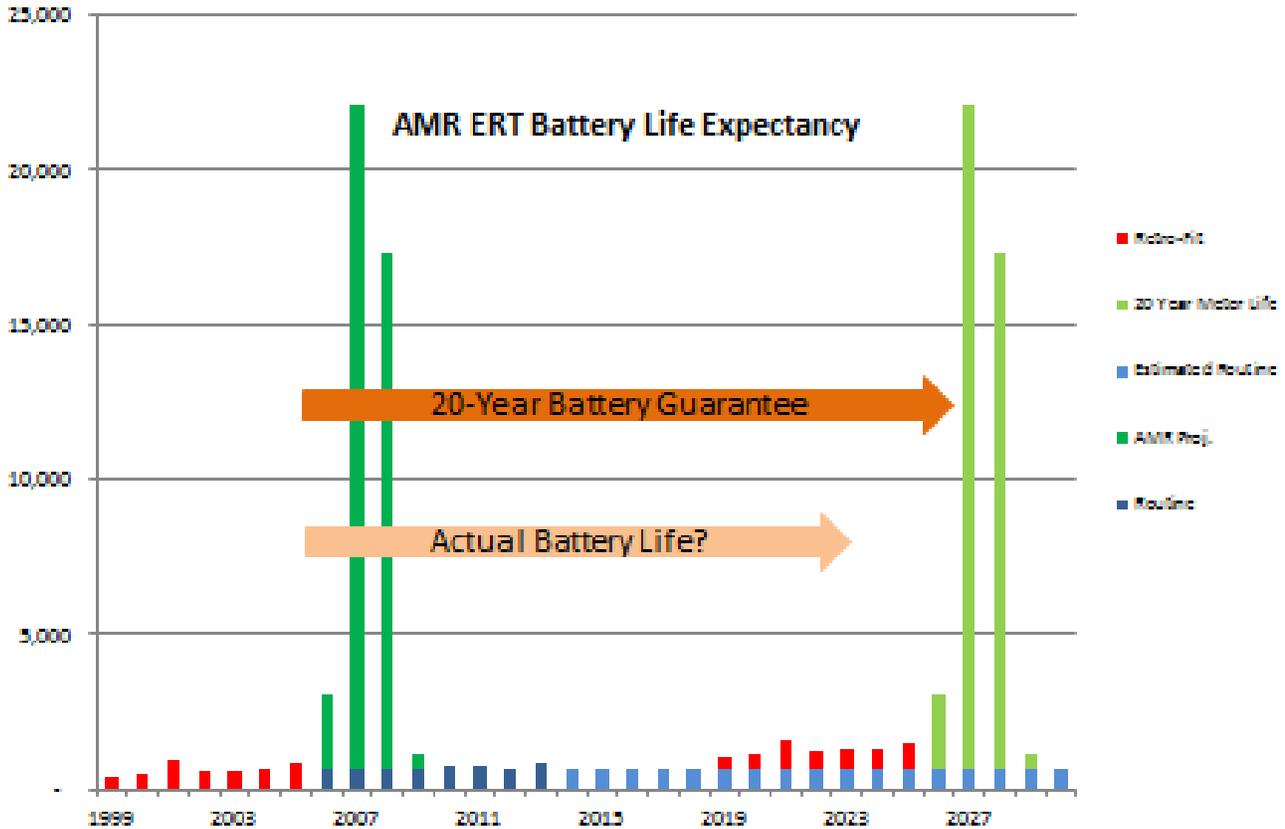
PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
Bond					\$1,600,000
Water Distribution System					\$1,600,000
63\3046\Meter Replacement and Leak Detection					\$1,600,000
Renewal and Replacement	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
Water Distribution System	\$400,000	\$400,000	\$400,000	\$400,000	\$400,000
63\3046\Meter Replacement and Leak Detection	\$350,000	\$400,000	\$400,000	\$400,000	\$400,000
63\3250\Master Meter Plan	\$50,000				
<b>Grand Total</b>	<b>\$400,000</b>	<b>\$400,000</b>	<b>\$400,000</b>	<b>\$400,000</b>	<b>\$2,000,000</b>

**Previous Years on CIP:** All  
**Related Projects:** none  
**Procurement Issues:** Standard meter procurement procedures.



**Subprogram # 63 Meter Replacement and Leak Detection**

**Meter Replacement Life-Cycle**



The above graph is projecting the life cycle of the District's 50,000 meters.  
 The next major meter change-out is projected for 2026-2028.

**Subprogram # 68**

**Facilities Improvements**

**Division:** Allocation  
**Funding:** R & R – Water- Div. 10

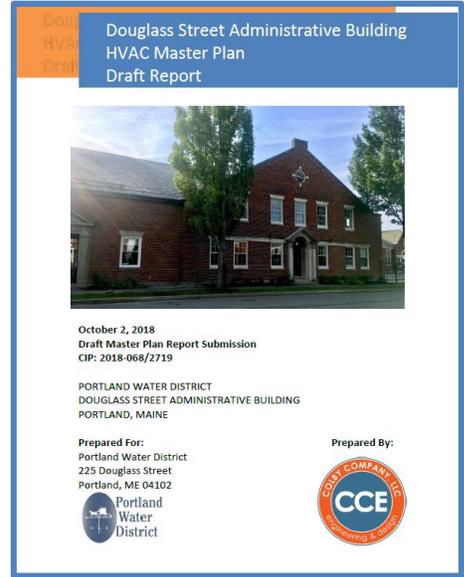
**Manager:** Hudak, Josh  
**Priority:** Upgrade obsolete facility

**Description:**

This project is a combination of numerous subprojects addressing the improvements and maintenance needs of the Douglass Street and Lake office facilities. Some of the projects shown in this years plan are ongoing projects while others are for the current plan year only.

**Justification / Impact:**

In order to maintain our office facilities in good condition and provide a suitable environment for our employees and customers, it is necessary to have a program to address any problem areas and additional requirements. In order to maintain the integrity of the facilities, problem areas such as leaks, indoor air quality, worn out or aging equipment and infrastructure needs to be addressed on an ongoing basis.



**Budget Summary:**

PROJECTS	-2022-	-2023-	-2024-	-2025-	-2026-
<b>Bond</b>	\$500,000	\$425,000	\$1,300,000	\$300,000	\$300,000
Water Facilities Program	\$500,000	\$425,000	\$1,300,000	\$300,000	\$300,000
68\3050\Facility Upgrades				\$300,000	\$300,000
68\3054\HVAC Improvements -Phases 1, 2, 3, 4	\$500,000	\$425,000	\$1,300,000		
<b>Renewal and Replacement</b>	\$360,000	\$125,000	\$125,000		
Water Facilities Program	\$360,000	\$125,000	\$125,000		
68\3050\Facility Upgrades	\$50,000	\$50,000	\$50,000		
68\3053\Douglass Street Roof replacement - Phase 3 of 3	\$280,000				
68\3216\Stockroom Platform Demo	\$30,000				
68\3217\SMT Renovation/Carpet/Lighting			\$75,000		
68\3218\Renovation of Finance		\$75,000			
<b>Grand Total</b>	<b>\$860,000</b>	<b>\$550,000</b>	<b>\$1,425,000</b>	<b>\$300,000</b>	<b>\$300,000</b>

Previous Years on CIP: 2000



2019 CIP #68, – Douglass Street – Slate Roof replacement – Phase 2 – Completed 2020. Phase 3 is scheduled for 2022 - 68/3053



**Watershed/Land Funds**

**Subprogram # 1**

**Watershed Land Acquisition**

**Division:** Water - General  
**Funding:** Watershed Land Reserve

**Manager:** Jackson, Laurel  
**Priority:** Regulatory mandate

**Description:**

Purchase land with or without buildings in accordance with the Watershed Land Purchase Policy.

**Justification / Impact:**

Ownership of land, particularly along the shore of Sebago Lake within the two-mile limit is the surest way to control land use that affects Lower Bay water quality and body contact.

**History:**

The District has a long standing policy to purchase Sebago Lake water frontage and other critical land for the purpose of watershed protection and long-term maintenance of Sebago Lake water quality. We do not aggressively solicit land to buy, but we have made public our interest to purchase Watershed land and, in recent times, all purchases have resulted from seller initiated contacts.

**Origin of the Subprogram:**

**Budget Summary:**

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
PEND 1	Watershed Protection Land Purchase	\$434,000
<b>Total Cost, All Years:</b>		<b>\$434,000</b>

**Previous Years on CIP:**

All since 1994

**Related Projects:**

None

**Procurement Issues:**

Purchase decisions are negotiated on the basis of professional real estate appraisals. Board of Trustees approval of individual purchases is required.

**Eel Cove – Shorefront properties within the 2 mile limit left.**



Properties left in Eel cove:

Tax Map Lot	Tax Assessed Value		
	Land	Building	Total
18-1	\$316,900	\$37,500	\$354,400
18-2	\$400,700	\$78,500	\$479,200
42-2	\$229,300	\$42,500	\$271,800
42-4	\$237,700	\$21,600	\$259,300
42-12A	\$30,900	\$0	\$30,900
42-13	\$30,900	\$0	\$30,900
42-18	\$269,500	\$184,700	\$454,200
42-20	\$396,200	\$125,800	\$522,000
42-24	\$63,300	\$11,700	\$75,000
<b>TOTALS</b>			<b>\$2,477,700</b>

**Recent**

purchases: Lanni/Porter purchased in 2007, Stanford in 2008 , Messenger 2017, Webb 2018

**Subprogram # 2 Watershed Land Conservation**

**Division:** Water - General  
**Funding:** Watershed Land Reserve

**Manager:** Hunt, Paul  
**Priority:** Regulatory mandate

**Description:**

Contribute towards land conservation projects in accordance with the Watershed Land Conservation Policy.

**Justification / Impact:**

There is a direct link between the degree to which a watershed is forested and the quality of water in the lakes and streams within it (AWWA, 2004). Conservation of forested land in perpetuity protects water quality, which benefits both customers of the Portland Water District and all other users of Sebago Lake.

**History:**

In 2007 the Portland Water District trustees adopted a policy to support measures to preserve Sebago Lake watershed land in perpetuity and to provide open space for lake-friendly public access. The District acknowledges that it is neither feasible nor necessary to own all land in the watershed. Instead the District cooperates and partners with organizations and individuals who seek to preserve and manage their watershed lands in a manner that protects water quality and therefore protects the health of drinking water consumers. In 2012, the policy was amended to allow for a contribution of up to 25% of the easement/acquisition value and a Standard Operating Procedure was developed for assessing projects. The District works closely with local partners and conservation organizations to achieve its watershed land protection goals and in 2017 a partnership called Sebago Clean Waters (SCW) was formalized. In 2020, the District, on behalf of Sebago Clean Waters, was awarded an \$8 million dollar grant from the Natural Resources Conservation Service via its Regional Conservation Partnership Program. As lead partner the District will manage the funds and report to NRCS on an annual basis. A goal of the grant is to conserve 10,000 acres over its 5-year term and the District’s estimated contribution is outlined in the budget summary.

**Budget Summary:**

<u>Budget year</u>	<u>Project</u>	<u>Budget Year Cost</u>
2022	Pend Watershed Land Conservation - District’s match	\$280,000

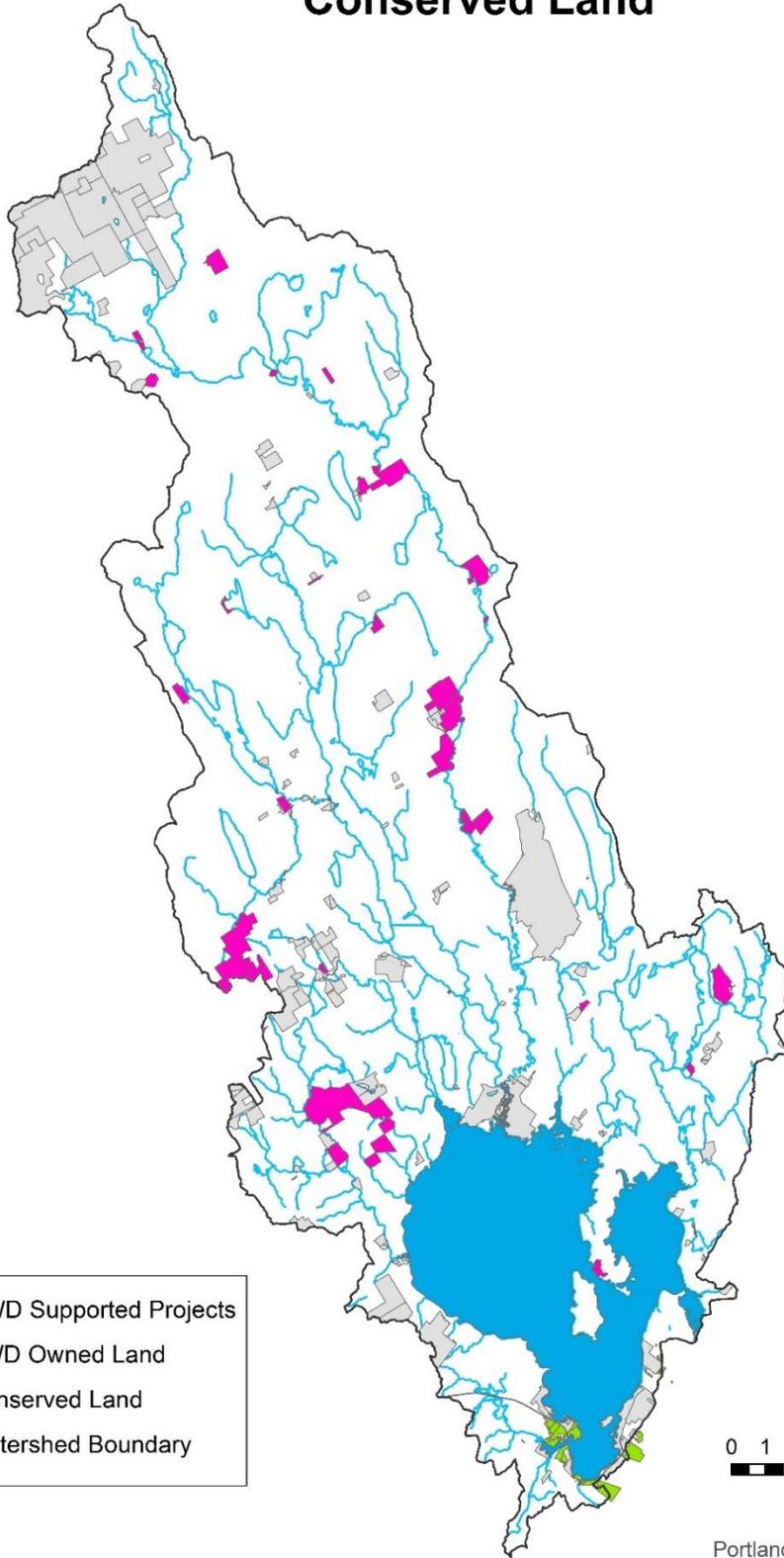
**Previous Years on CIP:** None  
**Related Projects:** Subprogram #1 – Watershed Land Acquisition (lower bay)  
**Procurement Issues:** Project contributions are recommended by staff based on a formula. Board of Trustees approval of contributions is required.

**Subprogram #1 and #2 are pending unscheduled work that may occur in 2022. If projects are undertaken, the Board of Trustees will be requested to approve and the Capital Improvement Plan amended. The project funding has not been included in the 2022 budget.**

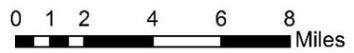
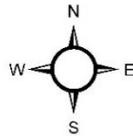
**Summary of Watershed Conservation Projects 2008-2020 – 5564 Acres Conserved – District’s contribution \$915,987**

Project	Town	Acres	Year	PWD Contribution
Hague	Waterford	350	2008	\$5,000
Little Moose Pond	Waterford	23	2009	\$500
Watkins	Waterford	690	2011	\$9,250
Camp Wawenock	Raymond	60	2010	\$10,000
Tenny River	Raymond	28	2012	\$5,000
Hague Farmstead	Waterford	88	2012	\$1,900
Perley Mills	Bridgton/Denmark	800	2013	\$50,000
Maple Ridge	Harrison	35	2013	\$5,880
Moon Valley	Harrison	14	2013	\$5,510
Flint Farm	Albany Township	156	2013	\$7,600
Perley Pond/NW River	Sebago	150	2014	\$33,600
Crooked River Watershed Forestland	Harrison/Otisfield	791	2014	\$268,899
Cummings Parcel	Harrison	10	2014	\$5,000
Stanley Parcel	Waterford	21	2015	\$1,575
Raymond Community Forest	Raymond	350	2014	\$38,944
Whitney Pond	Stoneham	70	2015	\$36,860
Proctor Pond	Albany Township	54	2015	9000
Howe Woodlot	Waterford	40	2017	3,200
Fogg Lot	Otisfield	68	2017	13,600
Hawk Mountain	Waterford	16	2017	2,420
Crooked River Forest	Harrison	38	2018	5,270
Peabody-Fitch	Bridgton	191	2018	20,724
Tiger Hill/ Sebago Community Forest	Sebago	1417	2018	345,000
Deering-Northwest River	Sebago	20	2019	\$8,970
Briggs Parcel	Waterford	27	2019	\$9,000
Scribner Parcel	Otisfield	41	2020	\$8,610
City Brook	Waterford	16	2020	\$4,675

# Sebago Lake Watershed Conserved Land

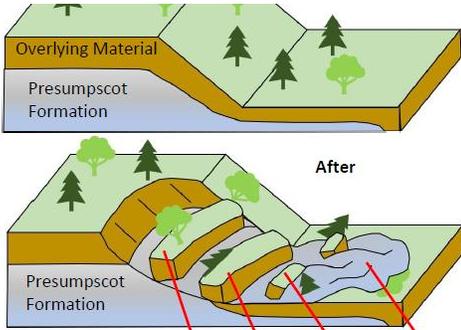


-  PWD Supported Projects
-  PWD Owned Land
-  Conserved Land
-  Watershed Boundary



## Presumpscot River Landslide – September 16, 2020

On September 16, 2020, a landslide occurred blocking the Presumpscot River. The landslide threatened the two water transmission pipes and the Westbrook Regional Treatment Plant’s outfall. The District responded, with Shaw Brother Construction, to remove debris from over the District’s Water Transmission Line and Wastewater outfall. Fortunately, the facilities were not damaged. The \$400,000 cost was expensed in 2020.



Completed debris removal 10-7-20



## **Introduction**

The District has the responsibility to manage their financial resources by establishing and following prudent financial policies and procedures. A summary of the significant financial policies is listed below. The district is in compliance with the policies except where noted below. Each policy is designated as being adopted by Law, Board or Management – see designation in parenthesis by policy title.

## **Significant Financial Policies**

### **Accounting, Auditing, and Financial Reporting:**

#### **Basis of Accounting (Law-Charter)**

The District maintains its accounting records and reports on its financial conditions and results of operations in accordance with generally accepted accounting principles (GAAP) as promulgated by the Governmental Accounting Standards Board (GASB). As a business-type activity, the District is accounted for in enterprise funds. Enterprise funds are accounted for on the flow of economic resources measurement focus, using the accrual basis of accounting. Under this method, all assets and liabilities are included in the statement of net position, revenues are recorded when earned, and expenses are recorded the time the liabilities are incurred. (See Budgeting and Financial Planning section for difference between GAAP and Budget.)

#### **Fund Structure (Law-Charter)**

As required by the District's charter, eight-supporting enterprise funds will be maintained – one fund for water service and seven funds for each of the communities we provide wastewater service. Revenues and expenses that are solely for the benefit of that fund are allocated directly to the enterprise fund. Enterprise funds, used for business-like activities, operate on an accrual basis. The accrual basis of accounting used by enterprise funds requires revenue to be recognized when it is earned and expenses to be recognized when the related benefit is received.

By contract, the District provides billing and meter reading services to two other communities. Related costs are recorded in the appropriate fund.

Costs that benefit more than one fund are recorded in an allocated fund. The balance in each fund is fully allocated to the appropriate enterprise or contracted utility billing funds. A detail explanation of the allocation methods used is provided on subsequent pages (see Cost Allocation Policy Detail on subsequent pages).

### **2021/2022 Policy Changes Highlights**

#### **Service Fees**

Because of the COVID-19 pandemic, late fees were waived through December 31, 2021, which historically generated \$40,000 of fees. The 2022 Budget assumes the resumption of late fees on January 1, 2022.

Normally, the water fund's terms and conditions (T&C) is usually updated every 2 years. Because of COVID-19, the T&C were not updated in 2021 and therefore the fees have not changed.

#### **North Windham**

A new wastewater treatment plant is being considered for North Windham, the business center in Windham. A preliminary study should be completed by the end of 2021 and the Town will decide in 2022 whether to construct the facility. As noted in the Cost Allocation section, a new North Windham fund has been created to capture related costs.

**Watershed Land Conservation Policy** Policy amended outlining when the District will obtain a real estate interest when contributing to the purchase on a conservation easement in the watershed. The District has been awarded an \$8 million federal grant to purchase such easement in the next 5 years. The policy allows the District to match that contribution up to 25% in cash or in-kind services. The projects will be individually approved and thus the expenditures are not included in the budget.

## **Significant Financial Policies (continued)**

### **Financial Planning Policies:**

#### **Annual Audit (Law-Charter)**

Annual audit shall be conducted each year by June 30. The Board of Trustees shall appoint auditors.

#### **Financial Reporting (Management)**

Monthly financial reports should be distributed to the Board of Trustees and Management for their review. The report should include a comparison of actual results to budget with variance noted and explained.

#### **Basis of Budgeting (Management)**

The budget is consistent with GAAP, including the utilization of accrual accounting, except for the following items:

- Depreciation, being a non-cash expense, is not budgeted,
- Contributions to asset renewal and replacement cash reserve is budgeted,
- Principal Payments are included in the budget,
- Contributed assets are not included in the operating or capital budget,
- Pension Actuarially Determined Contribution is included in the budget opposed to the pension expense, and
- Net proceeds of asset sales are not recorded in the budget.

The Board must authorize any amendment to the operating budget that results in a net increase in the total net operating budget. The general manager and treasurer are authorized to approve transfers between departments and funds. The Board of Trustees must approve all capital projects. The upcoming year's projects listed in the Capital Expenditure section of this document are approved when the document is adopted. As long as the actual costs are at or below the approved amount and it is awarded to the lowest bidder, the project does not need additional Board approval.

The policy requires the preparation of a multi-year projection of operating and capital expenses. The budget must be completed so the wastewater communities can be assessed the annual estimated costs by January 15th. The budget year is January 1 to December 31.

#### **Balanced Budget (Charter)**

A balanced operating budget is a budget that has total expenditures equal to total revenues, including use of fund balance. A balanced capital budget is a budget that has total expenditures that do not exceed available renewal/replacement fund amounts and external financing (bonds, grants or contributions).

## **Significant Financial Policies (continued)**

### **Financial Planning Policies (continued):**

#### **Long-Range Planning (Management)**

##### **Capital Improvement Plan**

A five-year capital improvement plan will be updated annually. The Board may authorize capital expenditures in the upcoming year as long as the staff awards the project to the lowest bidder and the total project budget is within the amount in the capital improvement plan.

##### **Operating Budget**

Operating projections of at least three future years are created. For the water fund, the projection is used to decide the appropriate water rate adjustment to consider. For most communities, wastewater services are a joint effort of the District providing treatment and interception service and the community providing collection and storm drain services. The District's projected assessment of our cost and their internal costs are considered when determining the appropriate sewer rate. All funds incorporate the recommendations of the capital improvement plans and operational evaluations/studies when projecting operating costs.

##### **Asset Inventory (Management)**

The District utilizes an asset management system that identifies the District's assets. All employees must record their time to work orders and the applicable asset they are working on. Asset classifications are being reviewed for accuracy and completeness with review focusing on the most important assets. Condition rating of assets has been done on some assets and efforts will continue on critical assets. Asset evaluation studies are completed periodically on critical assets.

### **Revenue Policies:**

#### **Water Rates (Board)**

Water rates are established to provide sufficient revenues to fully support the operation of the water fund's activities. In 1994, 2006, and 2016 cost of service studies calculated for each customer class (e.g. – residential, commercial, etc.) the amount of revenues generated and costs incurred. The study indicated that some classes were subsidizing other classes. Recognizing the impact of changing rates to reflect the cost of service for each customer class would cause significant rate shock for some customers, the approach of gradually adjusting rates over the future rate adjustments was adopted. Cost of service studies should be done periodically, approximately every 10 years, or if significant financial or operational change occurs that may have shifted the costs to serve the different customer classes. Generally, the Board has approved a small annual rate adjustment near the increase in the consumer price index.

In 2013, a new state law allowed for funding through an infrastructure capital reserve. The law allows the District to include an additional 10% in rates to fund a capital reserve. The 2022 budget assumes 1% of the proposed March 1, 2022 3.6% water rate adjustment be dedicated to the capital reserve. The 1% will fund the debt service on \$2 million, 10-year bond for replacing aging water mains. Past practice is to issue 20-year bond to finance main renewal. An additional 1% will be added for the each of the ten years beginning in 2014.

## **Significant Financial Policies (continued)**

### **Revenue Policies (continued):**

#### **Wastewater Assessment (Law -Charter)**

Wastewater assessments are established to provide sufficient revenues to support the operation for each of wastewater funds' activities. By state law, the municipality must pay the district's assessment.

#### **Service Fees (Board)**

Fees for miscellaneous service should be based on the cost to provide the service. Effective January 1, 2016, the District's Board can unilaterally authorize changes for water related fees. The District must file 'terms and conditions' (T&C) with the Maine Public Utilities Commission for information only. The T&C includes the fees for any service the District requires customers to obtain from the District. The District intends to file updated T&C at least every two years to assure the fees assessed covers the costs of providing the service. Updated T&C were approved with an effective date of May 1, 2019. Additionally the Board approved a policy authorizing non-water related fees and will approve those fees in the future at the same time they approve the water related fees.

#### **Investments (Board)**

Operating fund investments must be invested with the primary objective, in priority order, of safety, liquidity and yield. Investments should be made in securities that are backed directly or indirectly by the federal government. Currently, we are in compliance with the policy.

Pension funds' investments will be primarily invested in a diversified portfolio of equity and debt securities within guidelines established in the policy. The policy was revised to allow for US equities portion of plan assets, securities of foreign-based issuers that are transacted in US dollars on US exchanges are permitted up to a limit of 20%, an increase from 10%, and will be classified as US equities.

	Minimum <u>Weight</u>	Target <u>Weight</u>	Maximum <u>Weight</u>
US Equities	30%	40%	50%
International Equities	10%	25%	30%
Bonds	20%	25%	40%
Alternatives	0%	10%	15%
Cash & Equivalents	0%	0%	30%

#### **Use of One-time/Unpredictable Revenue (Board)**

The District's Board has established a fund to collect the net proceeds of water land sales. The fund is dedicated to future investment in protecting the watershed land. Unexpected water net income is typically allocated to contingency or rainy day fund. However, the Board considers whether any portion should be allocated to the watershed land fund. The Board has established a goal of 25% and 15% of operating expense for the contingency and watershed land funds, respectively. Unexpected wastewater net income is retained in the individual funds contingency fund.

## **Significant Financial Policies (continued)**

### **Expenditure Policies:**

#### **Debt (Board)**

Debt may be issued for capital expenditures only. There is no legal limit for the amount of debt the District can issue. However, the Board has set a maximum target for debt service in any fund to 35% of total budget. The target is close to industry standard (AWWA Industry Benchmark, median quartile, 2012). In addition, operating revenue available for debt service should be at least 125% of the annual debt service. The District is in compliance with the policy in 2021 and projected to be in compliance in 2022. Debt will not be issued for longer than the useful life of the assets being financed. The average duration of outstanding debt should be 10 years or less.

#### **Reserve Balances (Board)**

Each operating fund has a target balance of 25% of annual net operating budget. The Water and Portland Wastewater funds are expected to meet the target in the coming year. Other wastewater funds are expected to have deficits drawing their balance below the 25% threshold. The deficits are a result of unexpected expenditures.

Each fund has a cash reserve fund for the renewal and replacement of fixed assets. The target balance for the water and wastewater funds are 1% and 5%, respectively, of gross fixed asset costs. The wastewater target was increased from 3% to 5% in 2017. The Water, Westbrook Wastewater and Windham Wastewater meet the target balance. Cape Elizabeth, Cumberland, Gorham and Portland Wastewater Funds do not meet the increased target. In addition, the Water fund has a target balance of 15% of the annual net operating budget for a watershed land reserve. We project the reserve to be at 7.4% at the end of 2022.

The 2022– 2026 trend of operating and renewal & replacements fund balances for each of the Water & Wastewater funds are located in the Budget by Fund section.

#### **Capital Expenditures (Board)**

A capital expenditure is a project with a cost of \$10,000 or more and has a useful life greater than 5 years. An exception is made for certain assets annually purchased in bulk that exceed the \$10,000 amount in a year. For example, individual hydrants, meters and service lines cost less than \$10,000 but total annual purchases exceed \$10,000.

The Board of Trustees must approve all capital expenditures. An annual capital improvement plan is reviewed and approved by the Board and provides authorization for capital expenditures as long as the project costs are not exceeded and the lowest bid is accepted. If project cost is anticipated to exceed budget or the lowest bid is not accepted, the Board must specifically authorize. The General Manager, who must inform the Board of the expenditure, must approve emergency capital expenditures.

#### **Purchasing (Board)**

The policy outlines the requirements for obtaining competitive pricing and the formal bidding processes. It also establishes authorization levels for operating expenses including the requirement that expenses greater than \$50,000 be approved by the Board. Amounts less than \$50,000 must be included in the Board approved budget. We are in compliance with the policy.

## **Significant Financial Policies (continued)**

### **Expenditure Policies (continued):**

#### **Pension Funding Policy (Board)**

The Board voted to fully fund the District's defined benefit plan by contributing at least the annual required contribution as calculated by the actuary. Because of new accounting rules that went into effect in 2015, the Board adopted a new pension funding policy effective for 2015. The policy states the District's intention to adequately fund the pension plan and contribute at least the actuarially determined contribution consistent with assumption used to calculate the pension expense under the new accounting rule, except to spread out the funding for impact of changes of the benefits negotiated as part of the three-year union contract over the life of the union contract. The policy states the District will fund \$1 million a year, assuming the \$1 million is greater than the actuarially determined contribution (ADC). The 2022 Budget assumes the ADC of \$0.699 million will be paid in 2022, a decrease of \$0.726. The decline was primarily due to better investment returns.

### **Risk Management Policies**

#### **Maine Tort Claims Act (Law-State)**

As a public entity, the District's liability for third party tort claims is limited by the provisions of the Maine Tort Claims Act. The Act provides that the District is immune from claims, unless the Act provides a specific exception from immunity. In the District's case, the exception most likely to affect the District is one making the District liable for negligent use of machinery and equipment. Should the District be liable for a claim under the provisions of the Act, its liability is capped by the Act at \$400,000. The immunity provided public entities by the Tort Claims Act helps to keep the cost of the District's insurance lower, allowing the District to pass this savings to its ratepayers.

#### **Property and Liability Insurance (Board)**

Property and liability insurance is purchased to cover building and personal property losses including losses due to flood and earthquakes. Certain liability claims are limited under the Maine Tort Claim Act to \$400,000. The Board adopted a change to limit insurance on claims covered by the Tort Claim Act to the Act's limit.

#### **Safety Program (Management)**

A full-time safety officer and executive safety team oversee various safety policies including confined space entry, electrical safety, ergonomic for video display terminals, fall protection, hazard communication and safety commitment policies. A safety incentive policy outlines an employee award program recognizing good safety performance.

#### **Employee Management (Management)**

A four-person Employee Services department oversees the district's employee relations management and practices. Over 60 policies have been created to guide management and employees with one goal of reducing the District's risk to losses.

#### **In-House Legal Counsel (Board)**

In 2006, the Board authorized hiring in-house legal counsel. Legal counsel actively participates in overseeing the district's operation, including reviewing all contracts, and proactively identifying ways to reduce or avoid legal issues.

## Cost Allocation Policy Detail

The District has one water fund and six wastewater funds (Cape Elizabeth, Cumberland, Gorham, Portland, Westbrook and Windham). In addition, the District also provides billing and/or meter reading services to three other municipalities (Falmouth, Scarborough and South Portland).

It is the District's policy to directly assign expenses to a fund/municipality whenever possible. However, there are some expenses, such as paid time off or work done by administrative personnel, where such an assignment is not possible. In such cases, an allocation of that cost must be done.

In 1995, the District engaged an outside consultant to review and update its cost allocation process. Since that time, organizational and other changes have necessitated updates and modifications. The changes that were made used the guidelines from the 1995 study. The current allocations were reviewed and approved by the District's current auditors during 2013.

Currently the District uses the following methods to allocate costs:

- Customers Served
- Direct Labor
- General Allocation Percentage
- Gross Asset Value
- Meter Equivalent Units
- Relative Benefits
- Square Footage Utilized

A description of each method, the percentages used in this Budget and the dollars allocated, are in the following pages.

Each financial transaction is assigned a cost center number when the transaction is recorded in the financial system. The fund number indicates whether it is a 'direct' charge to the fund or an 'indirect' charge that will be allocated. Each department's costs are broken down into the fund category in the Departmental Expense section. All costs ultimately are assigned to one of the seven enterprise funds or three contract billing municipalities.

<u>Fund</u>	<u>Description</u>	<u>Fund</u>	<u>Description</u>
10	Allocated to All Direct Funds	57	Portland Wastewater
20	Water - members	59	South Portland Billing
30	Water - nonmembers	61	Gorham Wastewater
50	Allocated to All Wastewater Funds	62	Westbrook Wastewater
51	Cape Elizabeth Wastewater	64	Allocated to
53	Cumberland Wastewater		Gorham/Westbrook/Windham
54	Falmouth Wastewater	65	Allocated to Gorham/Windham
55	Windham Wastewater	66	Portland Wastewater (Peaks Island)
		67	North Windham

## Customers Served

This method determines the ratio of customers per fund to the total number of customers served based on the average total number of water and sewer customers.

The costs for Customer Service have three different allocations (general, billing and meter reading costs) that vary slightly. Falmouth has flat billings for their sewer customers; therefore, their general needs are limited (compared with sewer bills based on usage) and they do not utilize meter reading data. In addition, Scarborough does its own billing and payment processing utilizing the District's meter reading data, thus they have no general or billing expenses.

### Sub-Groups Using Method:

F1 – Customer Service

H1 – Financial Services (payment processing)

#### 2022 Allocation %:

	General F1	Billing F1	Meter Read F1	Paymts H1
Water	67.82%	66.35%	67.68%	66.35%
Cape Eliz	2.15%	2.15%	2.15%	2.15%
Cumberland	1.10%	1.10%	1.10%	1.10%
Falmouth	0.37%	1.84%	0.00%	1.84%
Gorham	1.72%	1.72%	1.72%	1.72%
Portland	15.44%	15.44%	15.51%	15.44%
Scarborough	0.00%	0.00%	0.38%	0.00%
So Portland	7.12%	7.12%	7.16%	7.12%
Westbrook	4.23%	4.23%	4.25%	4.23%
Windhan	0.05%	0.05%	0.05%	0.05%
	100.00%	100.00%	100.00%	100.00%

#### 2021 Allocation %:

	General F1	Billing F1	Meter Read F1	Paymts H1
Water	67.70%	66.24%	67.68%	66.24%
Cape Eliz	2.15%	2.15%	2.15%	2.15%
Cumberland	1.10%	1.10%	1.10%	1.10%
Falmouth	0.36%	1.82%	0.00%	1.82%
Gorham	1.72%	1.72%	1.72%	1.72%
Portland	15.51%	15.51%	15.51%	15.51%
Scarborough	0.00%	0.00%	0.38%	0.00%
So Portland	7.16%	7.16%	7.16%	7.16%
Westbrook	4.25%	4.25%	4.25%	4.25%
Windhan	0.05%	0.05%	0.05%	0.05%
	100.00%	100.00%	100.00%	100.00%

#### Dollars Allocated:

	General F1	Billing F1	Meter Read F1	Paymts H1
Water	\$713,519	\$245,033	\$52,194	\$137,165
Cape Eliz	\$22,620	\$7,940	\$1,658	\$4,445
Cumberland	\$11,573	\$4,062	\$848	\$2,274
Falmouth	\$3,893	\$6,795	\$0	\$3,804
Gorham	\$18,096	\$6,352	\$1,326	\$3,556
Portland	\$162,441	\$57,020	\$11,961	\$31,919
Scarborough	\$0	\$0	\$293	\$0
So Portland	\$74,908	\$26,294	\$5,522	\$14,719
Westbrook	\$44,503	\$15,622	\$3,278	\$8,745
Windhan	525	185	39	103
	\$1,052,078	\$369,303	\$77,119	\$206,730

#### Dollars Allocated:

	General F1	Billing F1	Meter Read F1	Paymts H1
Water	\$713,281	\$306,443	\$52,194	\$119,464
Cape Eliz	\$22,652	\$9,946	\$1,658	\$3,878
Cumberland	\$11,590	\$5,089	\$848	\$1,984
Falmouth	\$3,793	\$8,420	\$0	\$3,282
Gorham	\$18,122	\$7,957	\$1,326	\$3,102
Portland	\$163,412	\$71,753	\$11,961	\$27,972
Scarborough	\$0	\$0	\$293	\$0
So Portland	\$75,437	\$33,124	\$5,522	\$12,913
Westbrook	\$44,778	\$19,662	\$3,278	\$7,665
Windhan	526	232	39	90
	\$1,053,591	\$462,626	\$77,119	\$180,350

## Direct Labor

This method calculates the ratio of labor dollars directly charged by the area to specific funds.

### Sub-Groups Using Method:

B1 – Wastewater Administration

L6 – Laboratory

B3 – East End (Portland) Wastewater Treatment

L9 – Water/Wastewater Systems

C1 – Facilities Services

E7 – Instrumentation (general wastewater)

2022 Allocation %:	B1	B3	C1	E7	L6	L9
Water	0.00%	0.00%	78.36%	0.00%	44.46%	0.00%
Cape Elizabeth	13.35%	9.55%	4.24%	13.35%	5.34%	13.35%
Cumberland	3.78%	0.00%	1.28%	3.78%	0.00%	3.78%
Gorham	5.79%	2.19%	1.51%	5.79%	2.22%	5.79%
Portland	62.13%	74.13%	10.91%	62.13%	33.82%	62.13%
Westbrook	12.68%	13.64%	3.29%	12.68%	13.68%	12.68%
Windham	2.27%	0.49%	0.41%	2.27%	0.48%	2.27%
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	B1	B3	C1	E7	L6	L9
Water	\$0	\$0	\$198,812	\$0	\$122,535	\$0
Cape Elizabeth	56,995	48,613	10,758	12,969	14,717	78,003
Cumberland	16,138	0	3,248	3,672	0	22,086
Gorham	24,719	11,148	3,831	5,625	6,118	33,831
Portland	265,252	377,350	27,680	60,355	93,211	363,022
Westbrook	54,135	69,433	8,347	12,318	37,703	74,088
Windham	9,692	2,494	1,040	2,204	1,324	13,264
	\$426,931	\$509,038	\$253,716	\$97,143	\$275,608	\$584,294
2021 Allocation %:	B1	B3	C1	E7	L6	L9
Water	0.00%	0.00%	81.64%	0.00%	36.07%	0.00%
Cape Elizabeth	11.84%	7.21%	3.51%	11.84%	5.26%	11.84%
Cumberland	3.92%	0.00%	0.72%	3.92%	0.00%	3.92%
Gorham	5.68%	2.28%	1.12%	5.68%	2.42%	5.68%
Portland	63.26%	75.90%	10.08%	63.26%	39.83%	63.26%
Westbrook	12.94%	14.11%	2.81%	12.94%	15.81%	12.94%
Windham	2.36%	0.50%	0.12%	2.36%	0.61%	2.36%
	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Dollars Allocated:	B1	B3	C1	E7	L6	L9
Water	\$0	\$0	\$207,134	\$0	\$99,412	\$0
Cape Elizabeth	50,549	36,702	8,905	11,502	14,497	69,180
Cumberland	16,736	0	1,827	3,808	0	22,904
Gorham	24,250	11,606	2,842	5,518	6,670	33,188
Portland	270,077	386,360	25,575	61,453	109,775	369,624
Westbrook	55,245	71,825	7,129	12,570	43,574	75,608
Windham	2,988	(14,129)	(37,801)	(11,946)	19,114	(5,223)
	\$419,845	\$492,364	\$215,611	\$82,905	\$293,042	\$565,281

## General Allocation Percentage

The ratio is calculated by determining each fund's operating budget (total expenditures less other/interest income) as a percentage to the total operating budget.

### Sub-Groups Using Method:

E7 – Instrumentation

H1 – Financial Services

J1 – General Manager's

G1 – Information Service

I1 – Employee Services

Office

2022 Allocation %:	E7	G1	H1	I1	J1
Water	55.41%	55.41%	55.41%	55.41%	55.41%
Cape Elizabeth	3.96%	3.96%	3.96%	3.96%	3.96%
Cumberland	2.08%	2.08%	2.08%	2.08%	2.08%
Gorham	2.54%	2.54%	2.54%	2.54%	2.54%
Portland	28.61%	28.61%	28.61%	28.61%	28.61%
Westbrook	6.47%	6.47%	6.47%	6.47%	6.47%
Windham	<u>0.93%</u>	<u>0.93%</u>	<u>0.93%</u>	<u>0.93%</u>	<u>0.93%</u>
	100.00%	100.00%	100.00%	100.00%	100.00%

Dollars Allocated:	E7	G1	H1	I1	J1
Water	\$111,822	\$706,159	\$403,451	\$349,589	\$1,054,794
Cape Elizabeth	7,992	50,467	28,834	24,984	75,383
Cumberland	4,198	26,508	15,145	13,123	39,595
Gorham	5,126	32,370	18,494	16,025	48,352
Portland	57,737	364,613	208,315	180,504	544,625
Westbrook	13,057	82,455	47,109	40,820	123,164
Windham	<u>1,876</u>	<u>11,854</u>	<u>6,772</u>	<u>5,869</u>	<u>17,704</u>
	\$201,808	\$1,274,426	\$728,120	\$630,914	\$1,903,617

2021 Allocation %:	E7	G1	H1	I1	J1
Water	55.89%	55.89%	55.89%	55.89%	55.89%
Cape Elizabeth	3.76%	3.76%	3.76%	3.76%	3.76%
Cumberland	2.14%	2.14%	2.14%	2.14%	2.14%
Gorham	2.56%	2.56%	2.56%	2.56%	2.56%
Portland	28.64%	28.64%	28.64%	28.64%	28.64%
Westbrook	6.14%	6.14%	6.14%	6.14%	6.14%
Windham	<u>0.87%</u>	<u>0.87%</u>	<u>0.87%</u>	<u>0.87%</u>	<u>0.87%</u>
	100.00%	100.00%	100.00%	100.00%	100.00%

Dollars Allocated:	E7	G1	H1	I1	J1
Water	\$112,790	\$712,277	\$406,946	\$352,618	\$1,063,932
Cape Elizabeth	7,588	47,918	27,377	23,722	71,576
Cumberland	4,319	27,273	15,582	13,502	40,737
Gorham	5,166	32,625	18,640	16,151	48,733
Portland	57,798	364,996	208,534	180,694	545,196
Westbrook	12,391	78,250	44,707	38,738	116,882
Windham	<u>-45,174</u>	<u>-19,918</u>	<u>25,863</u>	<u>-2,197</u>	<u>-9,027</u>
	\$154,878	\$1,243,421	\$747,649	\$623,228	\$1,878,029

## Gross Asset Value

The allocation percentage is each fund's gross (fixed) asset value as a ratio to all gross assets. Costs allocated include those that involve all District assets (All) or in some cases only wastewater assets (WW). The same asset values are used in both calculations except that the Water assets are removed for the wastewater calculations.

### Sub-Group Using Method:

E2 – Planning and Design

#### 2022 Allocation %:

	All	WW
Water	65.20%	0.00%
Cape Elizabeth	3.42%	9.82%
Cumberland	1.70%	4.89%
Falmouth	0.00%	0.00%
Gorham	3.38%	9.72%
Portland	21.46%	61.66%
Westbrook	4.25%	12.20%
Windham	0.59%	1.71%
	100.00%	100.00%

#### 2021 Allocation %:

	All	WW
Water	64.70%	0.00%
Cape Elizabeth	3.34%	9.46%
Cumberland	1.66%	4.70%
Falmouth	0.00%	0.00%
Gorham	3.38%	9.59%
Portland	22.04%	62.44%
Westbrook	4.30%	12.17%
Windham	0.58%	1.64%
	100.00%	100.00%

#### Dollars Allocated:

	All	WW
Water	\$663,423	\$0
Cape Elizabeth	34,799	30,542
Cumberland	17,298	15,209
Falmouth	0	0
Gorham	34,392	30,231
Portland	218,360	191,776
Westbrook	43,245	37,945
Windham	6,003	5,319
	\$1,017,520	\$311,022

#### Dollars Allocated:

	All	WW
Water	\$657,703	\$0
Cape Elizabeth	33,953	25,970
Cumberland	16,875	12,902
Falmouth	0	0
Gorham	34,359	26,326
Portland	224,046	171,410
Westbrook	43,711	33,409
Windham	5,896	4,503
	\$1,016,543	\$274,520

## Meter Equivalent Units

This calculation takes each meter and assigns a weight based on its size to determine a value of meter service provided to each fund.

### Sub-Group Using Method:

A6 – Utility Services (meter service)

#### 2022 Allocation %:

	A6
Water	65.58%
Cape Elizabeth	1.75%
Cumberland	1.00%
Gorham	1.59%
Portland	17.05%
Scarborough	1.15%
South Portland	7.51%
Westbrook	4.24%
Windham	0.13%
	100.00%

#### 2021 Allocation %:

	A6
Water	65.47%
Cape Elizabeth	1.76%
Cumberland	0.99%
Gorham	1.59%
Portland	17.12%
Scarborough	1.14%
South Portland	7.54%
Westbrook	4.26%
Windham	0.13%
	100.00%

#### Dollars Allocated:

	A6
Water	\$111,806
Cape Elizabeth	2,984
Cumberland	1,705
Gorham	2,711
Portland	29,068
Scarborough	1,961
South Portland	12,804
Westbrook	7,229
Windham	220
	\$170,488

#### Dollars Allocated:

	A6
Water	\$110,283
Cape Elizabeth	2,965
Cumberland	1,668
Gorham	2,678
Portland	28,838
Scarborough	1,920
South Portland	12,701
Westbrook	7,176
Windham	219
	\$168,448

## Relative Benefits

This method of allocation is based upon management's assessment of the benefit received by the departments and funds from the areas providing the service. Customer Service (control/dispatch) allocation previously had 5% allocated to wastewater funds based on the number of pump stations in each community. During the COVID-19 pandemic the Wastewater Systems department took over responding to alarms at wastewater pump stations and will continue doing so moving forward; therefore the allocation for control/dispatch is now 100% water. The Laboratory wastewater split was determined by the number of tests run for each community. The allocation (new in 2019) for Industrial Pretreatment (IPT) is based on the applicable industries in each community.

### Sub-Groups Using Method:

- F1 – Customer Service (control/dispatch center)
- L6 – Laboratory (general wastewater)
- L6 – Industrial Pretreatment (IPT)

#### 2022 Allocation %:

	F1	L6	IPT
Water	100.00%	0.00%	0.00%
Cape Elizabeth	0.00%	9.24%	0.00%
Cumberland	0.00%	0.00%	0.00%
Gorham	0.00%	4.00%	12.20%
Portland	0.00%	61.29%	61.00%
Westbrook	0.00%	24.60%	24.40%
Windham	0.00%	0.87%	2.40%
	100.00%	100.00%	100.00%

#### Dollars Allocated:

	F1	L6	IPT
Water	\$217,814	\$0	\$0
Cape Elizabeth	0	21,486	0
Cumberland	0	0	0
Gorham	0	9,301	7,112
Portland	0	142,518	35,561
Westbrook	0	57,203	14,224
Windham	0	2,023	1,399
	\$217,814	\$232,531	\$58,296

#### 2021 Allocation %:

	F1	L6	IPT
Water	95.00%	0.00%	0.00%
Cape Elizabeth	1.64%	7.94%	0.00%
Cumberland	0.93%	0.00%	0.00%
Gorham	0.99%	3.80%	14.20%
Portland	1.00%	62.50%	62.00%
Westbrook	0.17%	24.80%	21.40%
Windham	0.27%	0.96%	2.40%
	100.00%	100.00%	100.00%

#### Dollars Allocated:

	F1	L6	IPT
Water	\$224,395	\$0	\$0
Cape Elizabeth	3,874	18,328	0
Cumberland	2,197	0	0
Gorham	2,338	8,772	8,365
Portland	2,362	144,273	36,523
Westbrook	402	57,248	12,606
Windham	637	2,216	1,414
	\$236,205	\$230,837	\$58,908

## Square Footage Utilized

The costs of the Douglass Street administrative facility are charged to each area based on the square footage they occupy. Office space is charged out at a higher rate (five times higher) than warehouse space. Dollars are allocated to the sub-groups.

### 2022 Allocation %:

<b>Water Operations</b>	
A1 - Water Administration	1.99%
A2 - Transmission/Distribution	5.75%
A6 - Utility Services	1.55%
	9.29%
<b>Environmental Services</b>	
A5 - Water Resources	0.81%
L6 - Water/WW Laboratory (IPT)	0.55%
	1.36%
<b>Wastewater Operations</b>	
B1 - WW Administration	1.77%
L9 - Water/WW Systems	3.64%
	5.41%
<b>Engineering Services</b>	
C1 - Facility Services	22.99%
E2 - Planning & Design	14.95%
E7 - Instrumentation	1.33%
	39.27%
<b>Administration</b>	
F1 - Customer Service	11.45%
G1 - Information Services	6.13%
H1 - Financial Services	7.86%
I1 - Employee Services	4.49%
J1 - BOT & Senior Management	14.74%
	44.67%
	100.00%

### Dollars Allocated:

	<b>\$</b>
Water Operations	\$70,309
Environmental Services	10,293
Wastewater Operations	40,944
Engineering Services	297,204
Administration	338,071
	<u>\$756,821</u>

### 2021 Allocation %:

<b>Water Operations</b>	
A1 - Water Administration	2.00%
A2 - Transmission/Distribution	5.79%
A6 - Utility Services	1.56%
	9.35%
<b>Environmental Services</b>	
A5 - Water Resources	0.82%
L6 - Water/WW Laboratory (IPT)	0.55%
	1.37%
<b>Wastewater Operations</b>	
B1 - WW Administration	1.78%
L9 - Water/WW Systems	3.66%
	5.44%
<b>Engineering Services</b>	
C1 - Facility Services	23.12%
E2 - Planning & Design	15.04%
E7 - Instrumentation	1.34%
	39.50%
<b>Administration</b>	
F1 - Customer Service	11.53%
G1 - Information Services	5.61%
H1 - Financial Services	8.47%
I1 - Employee Services	3.89%
J1 - BOT & Senior Management	14.84%
	44.34%
	100.00%

### Dollars Allocated:

	<b>\$</b>
Water Operations	\$70,145
Environmental Services	10,278
Wastewater Operations	40,812
Engineering Services	296,335
Administration	332,645
	<u>\$750,215</u>

## Vehicle Rates

Internal Transportation costs are charges the departments receive for the availability of District owned vehicles. Each type of vehicle and piece of equipment has an assigned hourly rate. Most vehicles are charged for 40 hours per week. Charges are either assigned directly to the task or to a “stand-by” account or later allocated. Transportation costs represent the expense of operating the garage and include labor, materials, occupancy and depreciation. Overall budget is 2.6% greater than 2021 due to the rates increasing 9.3% due to a large increase in gas prices.

### 2022 Budget Details

Vehicle Type	Rate	Active Hours	Stand-by Hours	Total Hours
Backhoe/Loader <19,501 GVW	\$ 38.41	856		856
Backhoe/Loader >=19,500 GVW	\$ 44.23	145		145
Car	\$ 3.65	1,290	3,545	4,835
Compressor	\$ 23.26	3,328		3,328
Dump Truck < 15,000 GVW	\$ 9.81	550	1,530	2,080
Dump Truck 15,001-40,000 GVW	\$ 12.60	900	3,260	4,160
Dump Truck >= 40,000 GVW	\$ 16.84	3,700	4,620	8,320
Generator/Load Bank	\$ 39.57	362		362
Misc. Const. Equipment - Forklift, etc.	\$ 26.76	3,074		3,074
Misc. Trailed Equipment - Trailer Mounted Pump, Jet Ma	\$ 17.47	2,089		2,089
Pick-up Truck/SUV - Light - < 6,000 GVW	\$ 3.65	1,410	2,750	4,160
Pick-up Truck/SUV - Medium - 6,001-7,500 GVW	\$ 3.92	12,921	24,520	37,440
Pick-up Truck/SUV - Heavy - 7,501-10,000 GVW	\$ 4.76	6,093	8,567	14,660
Special Purpose - C - Crane, Sludge, etc.	\$ 52.37	40		40
Special Purpose - D - Jetvac, etc.	\$ 69.83	1,296		1,296
Utility Truck 10,001 - 14,000 GVW	\$ 3.92	7,145	7,415	14,560
Utility Truck 14,001 - 16,000 GVW	\$ 5.60	4,364	3,956	8,320
Utility Truck 16,001 - 19,500 GVW	\$ 6.17	4,828	3,492	8,320
Utility Truck 6,001 - 10,000 GVW	\$ 6.72	7,598	2,802	10,400
Van < 6,000 GVW	\$ 3.65	975	1,105	2,080
Van 6,001-7,500 GVW	\$ 3.91	1,132	948	2,080
Van 7,501-10,000 GVW	\$ 4.76	24,209	15,311	39,520
<b>Total Hours</b>		<b>88,305</b>	<b>83,821</b>	<b>172,125</b>

Sub-Group	2021 Budget	2022 Budget	\$ - Difference	% - Difference
A1 - Water Administration	\$ -	\$ -	\$ -	n/a
A2 - Transmission/Distribution	\$ 612,268	\$ 592,762	\$ (19,506)	-3.2%
A3 - Water Treatment	\$ 35,969	\$ 35,577	\$ (392)	-1.1%
A5 - Water Resources	\$ 35,741	\$ 39,058	\$ 3,317	9.3%
A6 - Utility Services	\$ 166,913	\$ 182,331	\$ 15,418	9.2%
B1 - WW Administration	\$ -	\$ -	\$ -	n/a
B3 - Wastewater Treatment	\$ 57,082	\$ 62,366	\$ 5,284	9.3%
C1 - Facility Services	\$ 61,777	\$ 66,731	\$ 4,954	8.0%
E2 - Planning & Design	\$ 18,368	\$ 20,519	\$ 2,151	11.7%
E7 - Instrumentation	\$ 21,877	\$ 23,900	\$ 2,023	9.2%
F1 - Customer Service	\$ 14,920	\$ 16,287	\$ 1,367	9.2%
I1 - Employee Services	\$ -	\$ -	\$ -	n/a
J1 - BOT & Senior Management	\$ -	\$ -	\$ -	n/a
L6 - Water/WW Laboratory	\$ -	\$ -	\$ -	n/a
L9 - Water/WW Systems	\$ 178,407	\$ 194,481	\$ 16,074	9.0%
	<b>\$1,203,322</b>	<b>\$1,234,012</b>	<b>\$30,690</b>	<b>2.6%</b>

## Joint Use Facilities – Operations and Maintenance Allocations

The District has two areas where wastewater flows from more than one community are combined. Costs associated are allocated by the percentage of the flow contributed by each:

### Portland Water District Facilities:

**Westbrook Regional** – All of the wastewater from Gorham, Westbrook and Windham is treated at Westbrook Regional WWTF, with one pump station handling the flow from all communities. The budget for 2022 is \$1,445,717, up \$186,850 or 14.7% due to higher costs for biosolids disposal and chemicals.

**Little Falls** – The Little Falls areas of Gorham and Windham previously used a small treatment facility. Since 2008, flows from this area have been conveyed to the Westbrook Regional WWTF. Wastewater from Windham moves into Gorham where it is combined with that community's flow until it joins with the Westbrook flow at the Westbrook town line. The budget is \$88,804 up 9.5% (\$7,707) mostly due to higher labor/benefit costs and materials costs.

----- Westbrook Regional -----				----- Little Falls -----	
	Gorham	Westbrook	Windham	Gorham	Windham
2014	14.00%	83.70%	2.30%	15.00%	85.00%
2015	13.00%	84.70%	2.30%	20.00%	80.00%
2016	15.00%	82.00%	3.00%	22.50%	77.50%
2017	16.50%	80.25%	3.25%	21.50%	78.50%
2018	15.75%	81.00%	3.25%	27.50%	72.50%
2019	13.00%	84.00%	3.00%	28.00%	72.00%
2020	13.00%	84.00%	3.00%	24.50%	75.50%
2021	13.00%	84.00%	3.00%	22.50%	77.50%
2022	13.50%	83.50%	3.00%	27.00%	73.00%

### Contracted Services Facilities:

**South Portland** – Wastewater from the Northern portion of Cape Elizabeth is treated at the South Portland Treatment Facility (SPTF). The contractual agreement charges the District based on Cape Elizabeth's portion of the total flow at the SPTF. South Portland has lowered their flow through various combined sewer overflow (CSO) projects, which increased Cape Elizabeth's percentage from 6.7% to 8.3%. Charges to the District are budgeted to be \$229,620 in 2022 (an increase of 17.0%).

**Falmouth** – All of Cumberland's wastewater is treated at the Falmouth Treatment Facility (FTF) through a contractual agreement. This cost is budgeted to be \$607,540 in 2022 which is an increase of \$94,350 from the previous year. Most of the increase is due to upcoming capital projects at FTF.

---- South Portland ----			----- Falmouth -----		
	Cape Eliz	So Portland	Cumberland	Falmouth	Millcreek PS
2014	6.7%	93.3%	24.0%	76.0%	40.8%
2015	6.7%	93.3%	24.0%	76.0%	40.8%
2016	6.7%	93.3%	24.0%	76.0%	40.8%
2017	6.7%	93.3%	24.0%	76.0%	40.8%
2018	6.7%	93.3%	24.0%	76.0%	40.8%
2019	6.7%	93.3%	24.0%	76.0%	40.8%
2020	6.7%	93.3%	24.0%	76.0%	40.8%
2021	6.7%	93.3%	24.0%	76.0%	40.8%
2022	8.3%	91.7%	24.0%	76.0%	40.8%

## Joint Use Facilities – Capital Cost Sharing Allocations

The District has two areas where wastewater flows from more than one community are combined. Costs associated with these combinations are allocated by the percentage of the design flow contributed by each community. The areas of combined flow are:

### Portland Water District Facilities:

**Westbrook Regional** – All of the wastewater from Gorham, Westbrook and Windham is treated at Westbrook Regional Wastewater Treatment Facility. In addition, one pump station handles the combined waste from all three communities.

System	--- Millions of Gallons/Day (MGD) ---				----- Flow Percentage -----		
	Westbrook	Gorham	Windham	Total	Westbrook	Gorham	Windham
Southside Interceptor above Manhole 60	0.16	1.06	0.12	1.34	12.0%	79.1%	9.0%
Manhole 60 up to and including Siphon	5.00	1.06	0.12	6.18	81.0%	17.2%	1.9%
Cottage Place Pumping Station & Force Main	2.12	0.70	0.06	2.88	73.7%	24.3%	2.1%
Westbrook Regional WWTF & Outfall	3.02	1.40	0.12	4.54	66.6%	30.8%	2.6%

**Little Falls** – The Little Falls areas of Gorham and Windham used to be a self-contained system with a small wastewater treatment facility. Starting in 2008, wastewater from this area was conveyed to the Westbrook Regional Wastewater Treatment Facility. As it is presently constituted, wastewater from Windham moves into Gorham where it is combined with that community's flow until it joins with the Westbrook flow at the Westbrook town line.

Facility Name	----- Gallons/Day -----			-- Flow Percent --	
	Gorham	Windam	Total	Gorham	Windam
Gray Rd/Mallison St Gravity Sewer	63,500	53,500	117,000	54.3%	45.7%
Mallison St Pump Station (PS)/Flow Meter (FM)	84,000	100,000	184,000	45.6%	54.4%
Mosher Rd Gravity Sewer	145,000	100,000	245,000	59.2%	40.8%
Little River PS/FM	222,500	100,000	322,500	69.0%	31.0%
Mosher Rd & Cross Country Gravity Sewer	638,000	100,000	738,000	86.4%	13.6%
Industrial Park Gravity Sewer Upgrade	2,105,000	100,000	2,205,000	95.5%	4.5%
Woodlawn Ave PS (Tow Path Rd) effective 2008	-	-	-	100.0%	0.0%
Fire Station (Route 202) PS	-	-	-	0.0%	100.0%
Androscoggin St PS	-	-	-	0.0%	100.0%

### Contracted Services Facilities:

**South Portland** – All of the wastewater from the Northern portion of Cape Elizabeth is treated at the South Portland Treatment Facility through a contractual agreement.

Facility Name	--- Millions Gallons/Day (MGD) ---			---- Flow Percentage ----	
	Cape Eliz	So Portland	Total	Cape Eliz	So Portland
Treatment Plant	0.716	8.584	9.300	7.7%	92.3%

Note: In Cape Elizabeth 1/13th of average design flow = 7.7% per Sewer Service Agreement dated 08/11/93.

**Falmouth** – All of the wastewater from Cumberland is treated at the Falmouth Treatment Facility through a contractual agreement.

Facility Name	Millions of Gallons/Day (MGD)*			---- Flow Percentage ----	
	Cumberland	Falmouth	Total	Cumberland	Falmouth
Route 88 Interceptor - Town Line to Millcreek PS	1.790	1.007	2.797	64.0%	36.0%
Millcreek PS & Force Main	1.076	1.998	3.074	35.0%	65.0%
Millcreek Interceptor	2.030	1.595	3.625	55.5%	44.5%
Treatment Facility (average design flow)	0.468	1.092	1.560	30.0%	70.0%
Cumberland Route 1 Sewer Extension to Johnson Rd PS	0.144	0.490	0.634	22.7%	77.3%
Existing Sewers & Mains - Johnson Rd to Millcreek	0.144	0.216	0.360	40.0%	60.0%
Johnson Road PS (gallons pumped per minute)	100	150	250	40.0%	60.0%

\* = Peak flow unless noted otherwise

## Introduction

The appendix contains the following:

- 2023-2026 Financial Forecast
- CES Renewable Energy Consortium
- Maine Measures of Growth 2020 Scorecard
- Population Change and Density
- Water Benchmark Data
- Portland Water District Rate Sheet Summary
- Customer Satisfaction Survey
- Board of Trustees' Orders and Resolutions
- Glossary

## 2020 to 2026 Financial Forecast

A long-term financial forecast is developed incorporating estimated cost adjustments to operating expense line items and impact of projects in the capital improvement plan. A summary of the operating and capital budget plans are provided below. An income statement for each fund is provided in the Budget by Fund section.

### Consolidated Operating Budget:

	2020 Actual	2021 Budget	2022 Budget	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
<b>Revenues:</b>							
Water Sales	26,163,382	25,660,964	26,824,845	28,556,594	30,230,414	31,609,216	33,061,859
Assessment Income	20,218,572	21,083,736	22,346,196	23,147,244	24,402,408	25,583,657	26,486,768
Contracted Billing Income	212,460	212,796	220,236	234,697	237,253	238,909	242,450
Interest Income	579,167	276,655	104,660	104,660	115,126	126,638	126,638
Other Income	811,649	691,482	726,451	726,451	726,451	726,451	726,451
<b>Total Revenues</b>	<b>\$ 47,985,230</b>	<b>\$ 47,925,633</b>	<b>\$ 50,222,388</b>	<b>\$ 52,769,646</b>	<b>\$ 55,711,652</b>	<b>\$ 58,284,871</b>	<b>\$ 60,644,166</b>
<b>Operating Expenses:</b>							
Salaries & Wages	6,671,741	7,021,477	7,098,299	7,311,247	7,457,472	7,669,621	7,823,014
Employee Benefits	2,843,286	3,213,915	3,008,557	3,309,414	3,474,885	3,678,630	3,862,562
Biosolids Disposal	1,704,001	2,181,419	2,333,500	2,389,504	2,427,735	2,466,579	2,506,045
Chemicals	1,237,911	1,361,632	1,294,556	1,333,393	1,360,061	1,387,264	1,415,010
Contracted Services	3,465,033	3,083,447	3,385,809	3,487,383	3,557,131	3,628,273	3,700,839
Deferred Cost W/O	420,308	0	0	0	0	0	0
Facilities	100,702	110,506	110,723	114,045	116,326	118,653	121,026
Heat/Fuel Oil	261,435	253,551	295,461	304,325	310,412	316,618	322,950
Insurance	116,171	75,779	97,957	100,896	102,914	104,972	107,071
Materials & Supplies	945,759	1,165,698	1,214,146	1,250,570	1,275,582	1,301,096	1,327,119
Other Expense	348,838	211,782	129,494	133,378	136,046	238,766	243,542
Purchased Power	1,782,467	1,813,824	2,000,556	2,000,556	2,000,556	2,000,556	2,000,556
Regulatory/Taxes	307,784	256,046	557,736	574,469	585,958	597,678	609,632
Tele/Other Utilities	293,875	273,206	309,278	318,557	324,929	331,426	338,054
Transportation	804,289	993,413	999,145	1,029,119	1,049,701	1,070,694	1,092,108
SS - Administration	5,722,487	6,511,094	6,470,444	6,777,789	6,964,179	7,200,695	7,398,715
SS - Engineering Services	1,425,583	1,744,457	1,881,209	1,970,566	2,024,758	2,115,439	2,173,615
SS - Environmental Services	565,646	585,687	571,856	599,020	615,493	638,419	655,975
SS - Wastewater Services	1,540,040	1,485,809	1,520,263	1,492,425	1,483,467	1,511,262	1,502,821
SS - Water Services	97,443	168,740	171,124	179,253	184,184	189,248	194,452
<b>Total Operating Expenses</b>	<b>30,654,799</b>	<b>32,511,482</b>	<b>33,450,113</b>	<b>34,675,909</b>	<b>35,451,789</b>	<b>36,565,889</b>	<b>37,395,106</b>
Debt Service	10,557,002	11,190,042	12,078,648	12,997,328	14,723,454	15,642,573	17,102,651
Renewal & Replacement - Direct	4,477,349	3,244,849	3,446,500	3,698,849	3,898,849	4,298,849	4,248,849
Renewal & Replace - Indirect	1,079,997	990,000	1,080,001	997,560	997,560	997,560	997,560
<b>Capital Finance Expense</b>	<b>16,114,348</b>	<b>15,424,891</b>	<b>16,605,149</b>	<b>17,693,737</b>	<b>19,619,863</b>	<b>20,938,982</b>	<b>22,349,060</b>
<b>Total Operating Expenses</b>	<b>\$ 46,769,147</b>	<b>\$ 47,936,373</b>	<b>\$ 50,055,262</b>	<b>\$ 52,369,646</b>	<b>\$ 55,071,652</b>	<b>\$ 57,504,871</b>	<b>\$ 59,744,166</b>
<b>Current Year Surplus(Deficit)</b>	<b>\$ 1,216,083</b>	<b>\$ (10,740)</b>	<b>\$ 167,126</b>	<b>\$ 400,000</b>	<b>\$ 640,000</b>	<b>\$ 780,000</b>	<b>\$ 900,000</b>

### Consolidated Capital Budget:

#### Program Summary

	-2022-	-2023-	-2024-	-2025-	-2026-
Division 10 - Allocation	\$1,910,000	\$1,600,000	\$2,475,000	\$1,350,000	\$2,950,000
Division 20 - Water	\$10,610,000	\$12,040,000	\$13,900,000	\$16,805,000	\$11,300,000
Division 51 - Cape Elizabeth Wastewater	\$600,000	\$2,235,000	\$50,000	\$100,000	\$275,000
Division 53 - Cumberland Wastewater	\$20,000	\$2,540,000	\$20,000	\$20,000	\$20,000
Division 55 - Windham Little Falls Wastewater	\$10,090,000	\$520,000	\$20,000	\$20,000	\$20,000
Division 57 - Portland Wastewater	\$7,185,000	\$5,535,000	\$10,345,000	\$4,125,000	\$1,425,000
Division 61 - Gorham Village Wastewater	\$20,000	\$350,000	\$20,000	\$20,000	\$20,000
Division 62 - Westbrook Wastewater	\$20,000	\$20,000	\$20,000	\$3,220,000	\$20,000
Division 64 - Joint Westbrook Wastewater	\$150,000	\$65,000	\$1,200,000	\$725,000	\$2,125,000
Division 66 - Peaks Island Wastewater	\$50,000	\$500,000	\$20,000	\$30,000	\$245,000
<b>Grand Total</b>	<b>\$30,655,000</b>	<b>\$25,405,000</b>	<b>\$28,070,000</b>	<b>\$26,415,000</b>	<b>\$18,400,000</b>

## 2022 to 2024 Financial Forecast(continued)

A summary of future revenue impact to water ratepayers and wastewater municipal assessments is provided below. Total water revenues are projected to increase about 5% each year. The impact to retail customers is listed in the second table.

All 2021 wastewater assessments are at or below projections that were provided to the wastewater municipalities for ratemaking purposes last year except for Cumberland and Portland. The updated 2022-2024 are preliminary and will be reviewed with municipal officials in November 2020 before being finalized.

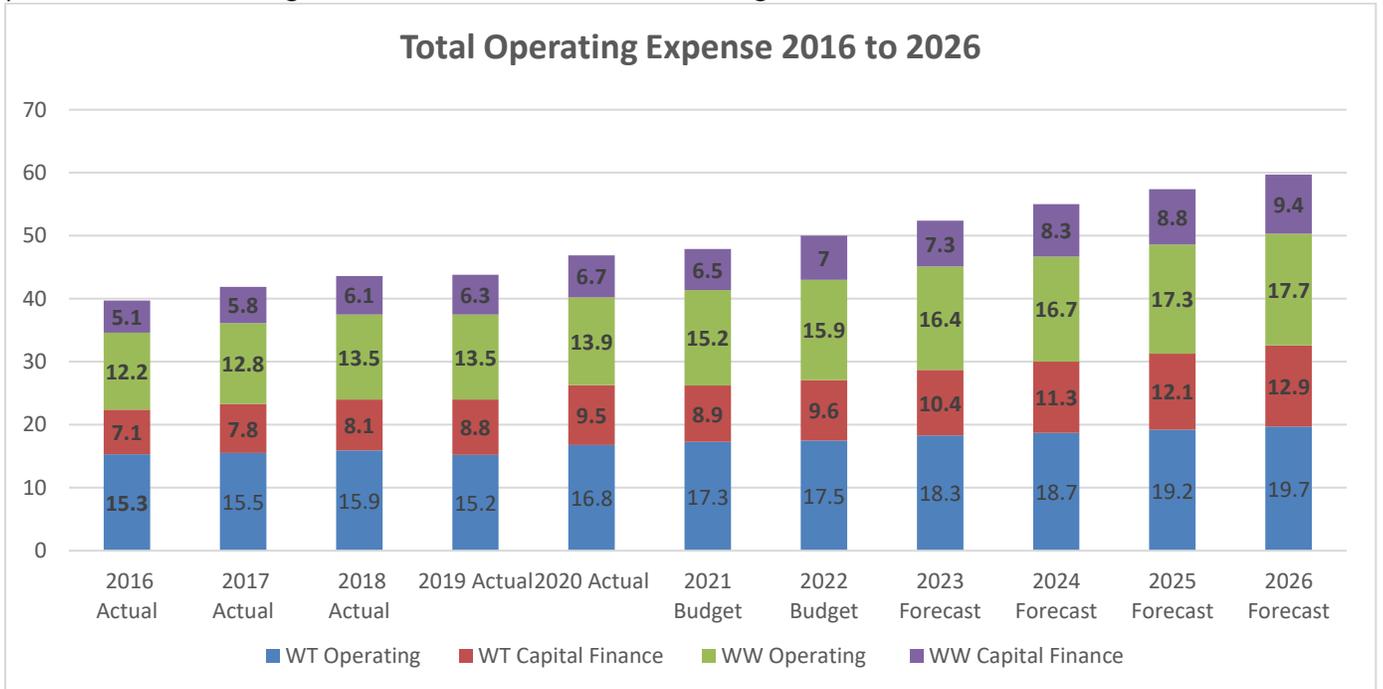
### Water Revenues and Municipal Assessments:

	Proposed 2022 Budget	Prior Year 2022 Projection	2023 Forecast	2024 Forecast	2025 Forecast	2026 Forecast
Water	\$ 26,824,845	\$ 26,966,738	\$ 28,556,594	\$ 30,230,414	\$ 31,609,216	\$ 33,061,859
	4.5%	5.1%	6.5%	5.9%	4.6%	4.6%
Wastewater:						
Cape Elizabeth	2,061,612	1,995,786	2,191,874	2,206,681	2,332,167	2,314,216
	12.3%	8.7%	6.3%	0.7%	5.7%	-0.8%
Cumberland	1,005,600	1,009,089	1,040,709	1,066,192	1,147,696	1,156,993
	1.7%	2.0%	3.5%	2.4%	7.6%	0.8%
Falmouth	314,112	312,413	307,099	304,981	302,873	300,811
	0.00%	-0.54%	-2.23%	-2.38%	-1.38%	-1.37%
Gorham	1,313,100	1,313,155	1,438,347	1,532,428	1,546,059	1,577,758
	10.5%	10.5%	9.5%	6.5%	0.9%	2.1%
Portland	13,960,236	14,316,905	14,149,653	14,860,475	15,282,206	16,100,310
	5.6%	6.5%	1.4%	5.0%	2.8%	5.4%
Westbrook	3,173,124	3,173,272	3,359,593	3,543,380	3,581,902	3,639,157
	9.3%	9.3%	5.9%	5.5%	1.1%	1.6%
Windham	518,412	519,152	659,969	888,271	1,390,754	1,397,523
	26.2%	26.3%	27.3%	34.6%	56.6%	0.5%

(By Dollar)		5/1/2019	12/1/2020	3/1/2022	1/1/2023	1/1/2024	1/1/2025	1/1/20243
Residential	.62" meter, 7 HCF	\$ 24.39	\$ 25.10	\$ 25.91	\$ 27.32	\$ 28.64	\$ 29.75	\$ 30.94
Commercial	.62" meter, 40 HCF	\$ 115.94	\$ 119.55	\$ 124.08	\$ 131.49	\$ 138.48	\$ 144.50	\$ 150.64
Small Industrial	2" meter, 1,300 HCF	\$ 1,857.46	\$ 1,940.18	\$ 2,032.14	\$ 2,200.90	\$ 2,357.25	\$ 2,494.44	\$ 2,636.79
Large Industrial	8" meter, 56,000 HCF	\$ 60,115.10	\$ 62,945.23	\$ 65,786.45	\$ 71,450.15	\$ 76,553.55	\$ 81,087.29	\$ 85,627.39
Government	2" meter, 70 HCF	\$ 193.56	\$ 201.28	\$ 209.94	\$ 225.00	\$ 239.65	\$ 252.04	\$ 265.29
Sprinkler	6" meter (month)	\$ 37.27	\$ 38.53	\$ 39.92	\$ 42.32	\$ 44.65	\$ 46.66	\$ 48.76
Public Fire (per year)		\$ 1,461,684	\$ 1,511,988	\$ 1,566,432	\$ 1,660,428	\$ 1,751,772	\$ 1,830,612	\$ 1,912,980
(By Percent)								
Residential	.62" meter, 7 HCF		2.9%	3.2%	5.4%	4.8%	3.9%	4.0%
Commercial	.62" meter, 40 HCF		3.1%	3.8%	6.0%	5.3%	4.3%	4.2%
Small Industrial	2" meter, 1,300 HCF		4.5%	4.7%	8.3%	7.1%	5.8%	5.7%
Large Industrial	8" meter, 56,000 HCF		4.7%	4.5%	8.6%	7.1%	5.9%	5.6%
Government	2" meter, 70 HCF		4.0%	4.3%	7.2%	6.5%	5.2%	5.3%
Sprinkler	6" meter (month)		3.4%	3.6%	6.0%	5.5%	4.5%	4.5%
Public Fire (per year)			3.4%	3.6%	6.0%	5.5%	4.5%	4.5%

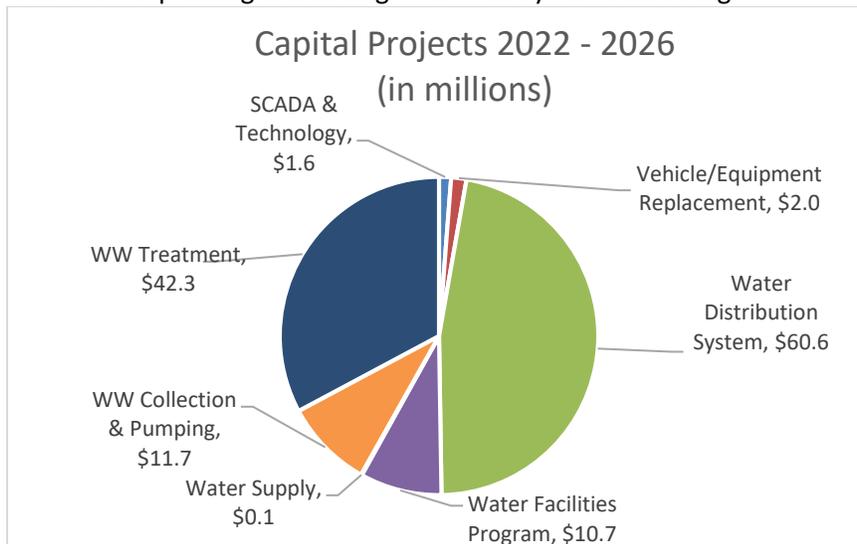
**2022 to 2024 Financial Forecast (continued)**

Total expenses are projected to increase to almost \$60 million by 2026, a 50% total increase since 2016 (or 5% a year). As the chart shows, increases in capital financing are driving the increases with water and wastewater capital finance cost increasing by 82% and 84%, respectively. Capital finance costs consists of two components – debt service payments and contribution to the renewal and replacement funds. The debt service component portion of the total budget increases from 19% of the total budget to 27%.



Major assumptions incorporated in the projections are as follows:

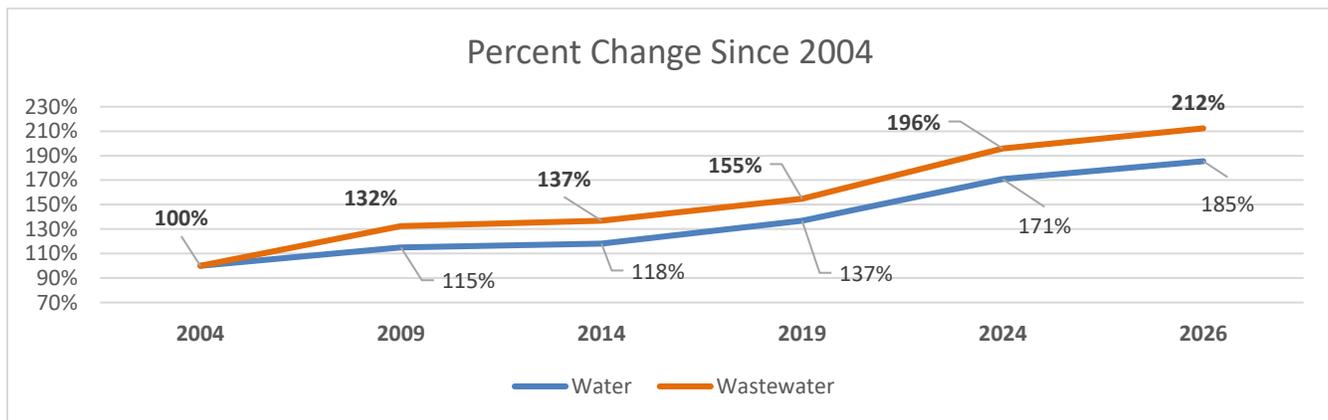
- Salary increases of 3.0% in 2023 and 2% in other years. No change in number of employees.
- Benefit increases of 10% in 2023 (health insurance increase) and 5% in other years.
- Other expenses increase between 2% and 5% each year.
- New debt service and renewal/replacement fund expenditures consistent with the 2022 5-year capital plan, which includes close to \$129 million of capital project. New debt assumed a 20-year life between 1% and 3.5% interest depending on funding source and year of financing.



## 2022 to 2024 Financial Forecast (continued)

### Budget by Fund Trends

The proposed 2022 budget is 80% and 54% higher than 2004 budget for the wastewater funds and water fund, respectively. Between 2004 and 2009, significant bonded capital projects including the connecting the Little Falls area in Windham and Gorham to the Westbrook Regional Treatment facility and upgrades at the treatment facilities. Significant investment in the wastewater funds, including major plant & pump stations upgrade, along with the new facility serving North Windham causes the gap between the two parts of the company to widen



### Total Expense Budget

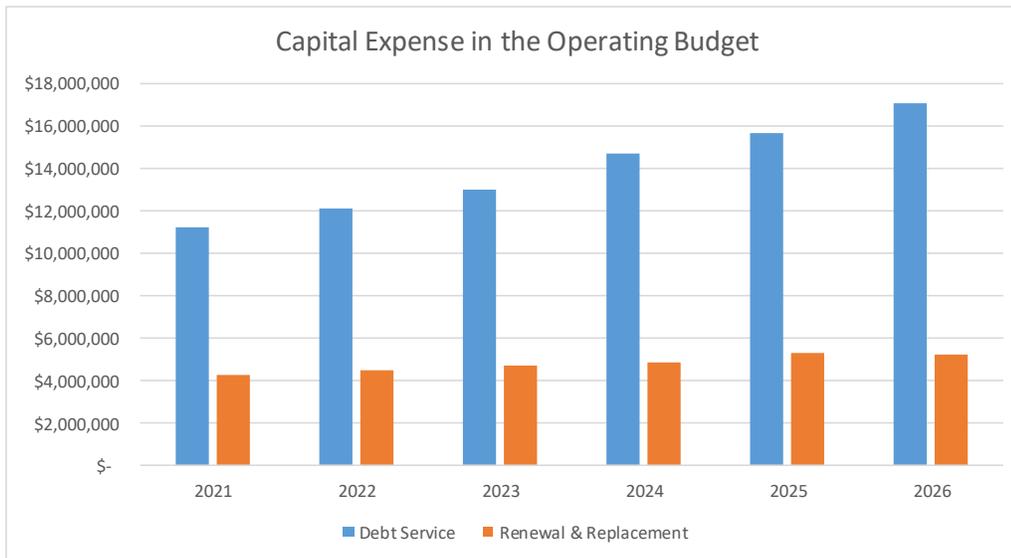
	2004	2009	2014	2019	2024	2026
Water	\$17,608,717	\$20,245,019	\$20,817,310	\$24,087,928	\$30,078,190	\$32,655,905
WW- Cape Elizabeth	1,043,475	1,089,695	1,378,857	1,571,432	2,209,214	2,317,002
WW- Cumberland	498,146	767,586	771,632	954,624	1,068,622	1,159,666
WW- Falmouth	45,721	10,937	15,012	306,132	305,311	301,174
WW- Gorham	578,340	1,056,084	1,121,671	1,103,156	1,538,000	1,583,792
WW- Portland	8,481,000	10,951,209	10,982,397	12,535,853	15,132,703	16,374,761
WW- Westbrook	1,920,536	2,474,362	2,645,693	2,688,293	3,612,212	3,709,852
WW- Windham	54,091	338,117	355,253	391,218	889,707	1,399,080
Other Contract Billing	136,834	206,279	189,158	196,122	237,693	243,137

## 2022 to 2024 Financial Forecast (continued)

### Capital

The operating budget includes the annual contribution to a renewal/replacement fund to pay for smaller capital projects, and debt service on existing and proposed larger capital projects. Contributions were decreased in 2021 due to lower level of expenditures and the decision to draw down from reserves to limit rate adjustments during COVID-19. Starting in 2022, contributions are being increased getting closer to the pre-COVID-19 level.

Capital Expense decrease by 5% between 2020 and 2021. For 2022-2026, the expense increases by 7% each year, except in 2024 which has a 10% increase.



Over \$128 million of new bonds are forecasted to be issued between 2022 and 2026. Eligible projects will be financed through the State Revolving Loan fund at a subsidized interest. The assumed rate for bonds issued directly to the market is 2.75 and 3.5%. The Capital Improvement Plan assumes the following funding of future projects.

### Financing Summary

	-2022-	-2023-	-2024-	-2025-	-2026-
Bond	\$9,630,000	\$13,535,000	\$12,550,000	\$18,050,000	\$12,900,000
Bond SRF	\$15,225,000	\$5,400,000	\$10,170,000	\$3,050,000	\$1,375,000
Renewal and Replacment	\$5,800,000	\$6,470,000	\$5,350,000	\$5,315,000	\$4,125,000
<b>Grand Total</b>	<b>\$30,655,000</b>	<b>\$25,405,000</b>	<b>\$28,070,000</b>	<b>\$26,415,000</b>	<b>\$18,400,000</b>

## 2022 to 2024 Financial Forecast (continued)

### Bond Limits

The District has no legal limits of debt. A board-approved policy establishes a target maximum level of debt service to 35% of total fund budget and minimum debt service ratio of 1.25. The table indicates the status and projected status.

#### Percent of Budget Dedicated to Debt Service – Target: Not to Exceed 35%

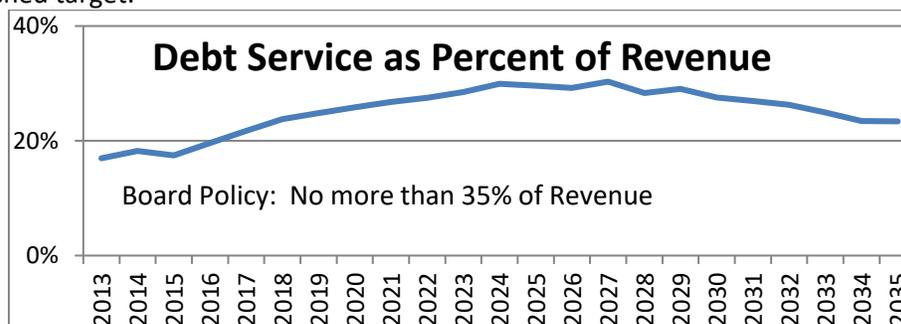
Funds	2019	2020	2021	2022	2023	2024	2025	2026
Water	22%	23%	24%	26%	26%	28%	28%	29%
Wastewater								
Cape Elizabeth	15%	17%	17%	18%	20%	21%	26%	26%
Cumberland	34%	31%	30%	29%	30%	30%	34%	33%
Gorham	34%	32%	31%	35%	37%	39%	39%	39%
Portland	20%	19%	20%	18%	18%	20%	21%	25%
Westbrook	19%	21%	21%	24%	27%	30%	29%	29%
Windham	38%	35%	34%	48%	55%	66%	55%	54%

#### Debt Service Ratio – Target: Greater or Equal to 1.25

Funds	2019	2020	2021	2022	2023	2024	2025	2026
Water	1.52	1.57	1.41	1.41	1.43	1.45	1.49	1.48
Wastewater								
Cape Elizabeth	1.50	1.53	1.51	1.46	1.40	1.38	1.29	1.29
Cumberland	1.19	1.28	1.28	1.29	1.28	1.27	1.22	1.23
Gorham	1.25	1.30	1.32	1.21	1.23	1.20	1.21	1.20
Portland	1.36	1.53	1.33	1.47	1.46	1.39	1.37	1.25
Westbrook	1.67	1.56	1.52	1.28	1.21	1.18	1.18	1.18
Windham	1.19	1.29	1.28	1.10	1.11	1.00	1.05	1.05

### Long-Term Water Fund Target

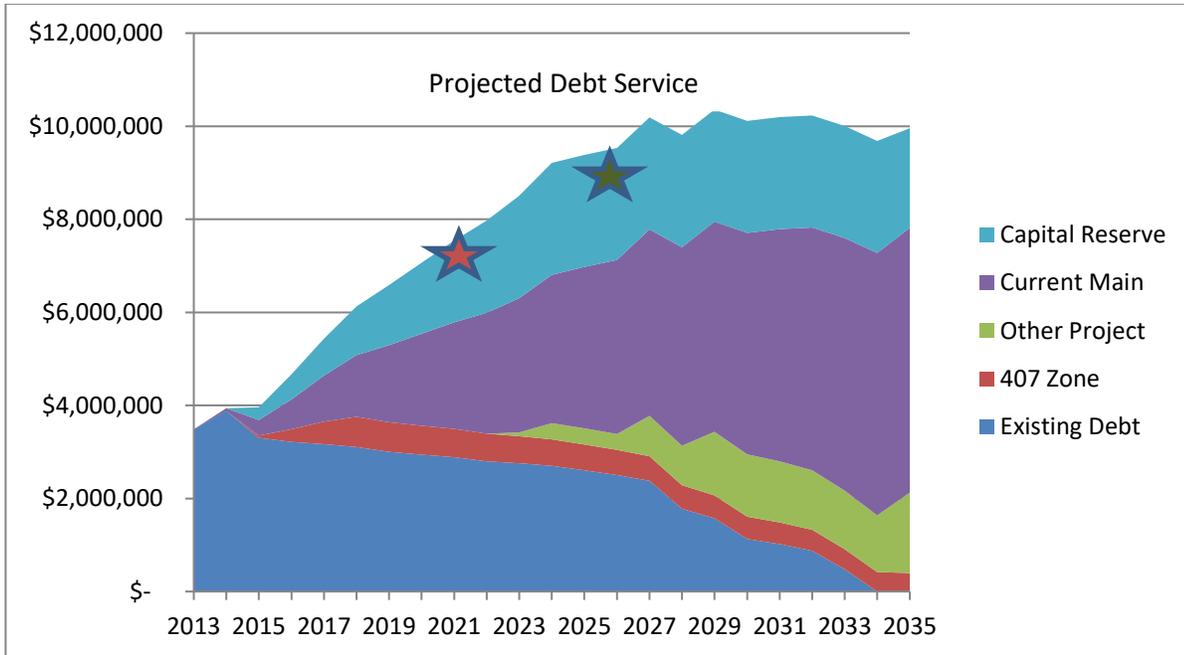
The long-term water fund target was established in 2013. The projected 2022-2026 ratio is at or below the established target.



## 2022 to 2024 Financial Forecast (continued)

### Projected Water Debt

The Water Fund has significant future bond financing needs including completing the 407 zone system upgrade and main renewals. In 2011, the Board adopted the policy to double the investment in main renewal by incrementally increasing the amount spent by \$500,000 until reaching an annual level of \$4 million in 2016. Starting in 2014, an additional annual investment of \$2 million was bonded to pay for main renewal and funded through the capital reserve. Other major projects include the installation of a new meter reading system and transmission line projects.



★ The 2022 Budget requests \$7.0 million of debt service, below the long-term plan

★ The updated multi-year projection is for \$9.3 million in 2026, \$200,000 below 2026 target.

## 2022 to 2024 Financial Forecast (continued)

### Projected Debt by Fund

Projected debt including proposed debt to finance the 5-year Capital Plan.

	Water		Cape Elizabeth Wastewater	
	Principal	Interest	Principal	Interest
2021	\$ 4,777,308	\$ 1,634,223	\$ 2,021	\$ 215,850
2022	\$ 5,352,819	\$ 1,721,058	\$ 2,022	\$ 277,750
2023	\$ 5,864,799	\$ 1,765,731	\$ 2,023	\$ 333,750
2024	\$ 6,357,772	\$ 1,908,132	\$ 2,024	\$ 351,250
2025	\$ 6,673,331	\$ 2,039,118	\$ 2,025	\$ 461,250
2026	\$ 7,157,068	\$ 2,252,215	\$ 2,026	\$ 461,250
2027	\$ 7,246,733	\$ 2,399,258	\$ 2,027	\$ 461,250
2028	\$ 7,011,445	\$ 2,167,868	\$ 2,028	\$ 461,250
2029	\$ 6,557,428	\$ 1,950,268	\$ 2,029	\$ 456,500
2030	\$ 6,217,596	\$ 1,742,820	\$ 2,030	\$ 456,500
2031	\$ 5,977,203	\$ 1,549,228	\$ 2,031	\$ 456,500
2032	\$ 5,605,833	\$ 1,372,103	\$ 2,032	\$ 335,000
2033	\$ 5,156,777	\$ 1,207,135	\$ 2,033	\$ 302,500
2034	\$ 4,827,730	\$ 1,052,330	\$ 2,034	\$ 302,500
2035	\$ 4,080,381	\$ 910,424	\$ 2,035	\$ 302,500
2036	\$ 3,646,743	\$ 794,268	\$ 2,036	\$ 290,500
2037	\$ 3,478,154	\$ 690,541	\$ 2,037	\$ 290,500
2038	\$ 3,193,417	\$ 591,852	\$ 2,038	\$ 271,150
2039	\$ 2,998,417	\$ 499,500	\$ 2,039	\$ 271,150
2040	\$ 2,762,417	\$ 410,703	\$ 2,040	\$ 220,900
2041	\$ 2,513,667	\$ 310,694	\$ 2,041	\$ 159,000
	<u>\$ 107,457,038</u>	<u>\$ 28,969,469</u>		<u>\$ 7,138,800</u>
				<u>\$ 1,196,892</u>

	Cumberland Wastewater		Gorham Wastewater	
	Principal	Interest	Principal	Interest
2021	\$ 6,250	\$ 525	\$ 2,021	\$ 303,655
2022	\$ 6,250	\$ 436	\$ 2,022	\$ 369,039
2023	\$ 6,250	\$ 348	\$ 2,023	\$ 426,933
2024	\$ 6,250	\$ 14,346	\$ 2,024	\$ 493,954
2025	\$ 127,000	\$ 83,991	\$ 2,025	\$ 493,954
2026	\$ 127,000	\$ 79,676	\$ 2,026	\$ 498,294
2027	\$ 120,750	\$ 75,368	\$ 2,027	\$ 532,174
2028	\$ 120,750	\$ 71,142	\$ 2,028	\$ 532,174
2029	\$ 120,750	\$ 66,916	\$ 2,029	\$ 301,919
2030	\$ 120,750	\$ 62,689	\$ 2,030	\$ 266,488
2031	\$ 120,750	\$ 58,463	\$ 2,031	\$ 263,870
2032	\$ 120,750	\$ 54,237	\$ 2,032	\$ 263,870
2033	\$ 120,750	\$ 50,011	\$ 2,033	\$ 263,870
2034	\$ 120,750	\$ 45,784	\$ 2,034	\$ 263,870
2035	\$ 120,750	\$ 41,558	\$ 2,035	\$ 263,870
2036	\$ 120,750	\$ 37,332	\$ 2,036	\$ 263,870
2037	\$ 120,750	\$ 33,106	\$ 2,037	\$ 263,870
2038	\$ 120,750	\$ 28,879	\$ 2,038	\$ 263,870
2039	\$ 120,750	\$ 24,653	\$ 2,039	\$ 248,470
2040	\$ 120,750	\$ 20,427	\$ 2,040	\$ 248,470
2041	\$ 120,750	\$ 16,201	\$ 2,041	\$ 248,470
	<u>\$ 2,090,250</u>	<u>\$ 866,088</u>		<u>\$ 7,074,954</u>
				<u>\$ 1,082,950</u>

## 2022 to 2024 Financial Forecast (continued)

### Projected Debt by Fund

Projected debt including proposed debt to finance the 5-year Capital Plan.

	Portland Wastewater			Westbrook Wastewater		
	Principal	Interest		Principal	Interest	
2021	\$ 2,160,508	\$ 314,413	\$	2,021	\$ 468,689	\$ 105,731
2022	\$ 2,041,740	\$ 380,018	\$	2,022	\$ 609,976	\$ 127,210
2023	\$ 2,035,231	\$ 348,144	\$	2,023	\$ 729,694	\$ 152,110
2024	\$ 2,395,281	\$ 459,354	\$	2,024	\$ 849,872	\$ 159,469
2025	\$ 2,494,531	\$ 524,376	\$	2,025	\$ 849,872	\$ 148,244
2026	\$ 3,090,531	\$ 661,781	\$	2,026	\$ 820,662	\$ 181,171
2027	\$ 3,159,281	\$ 632,656	\$	2,027	\$ 1,053,922	\$ 300,327
2028	\$ 3,159,281	\$ 584,821	\$	2,028	\$ 1,053,922	\$ 275,655
2029	\$ 2,878,287	\$ 537,405	\$	2,029	\$ 996,008	\$ 253,331
2030	\$ 2,878,287	\$ 493,377	\$	2,030	\$ 876,776	\$ 236,947
2031	\$ 2,835,677	\$ 449,554	\$	2,031	\$ 871,115	\$ 220,629
2032	\$ 2,779,337	\$ 407,006	\$	2,032	\$ 871,115	\$ 204,359
2033	\$ 2,779,337	\$ 364,821	\$	2,033	\$ 871,115	\$ 188,089
2034	\$ 2,629,337	\$ 323,607	\$	2,034	\$ 871,115	\$ 171,819
2035	\$ 2,629,337	\$ 287,366	\$	2,035	\$ 871,115	\$ 155,549
2036	\$ 2,529,337	\$ 251,357	\$	2,036	\$ 821,115	\$ 139,404
2037	\$ 2,019,600	\$ 216,931	\$	2,037	\$ 821,115	\$ 123,634
2038	\$ 2,019,600	\$ 186,749	\$	2,038	\$ 821,115	\$ 107,925
2039	\$ 1,994,600	\$ 156,767	\$	2,039	\$ 677,815	\$ 91,232
2040	\$ 1,837,100	\$ 126,275	\$	2,040	\$ 677,815	\$ 76,895
2041	\$ 1,751,000	\$ 98,711	\$	2,041	\$ 677,815	\$ 62,558
	\$ 52,097,220	\$ 7,805,489			\$ 17,161,758	\$ 3,482,288

	Windham Wastewater		Total	
	Principal	Interest	Principal	Interest
2021	\$ 102,159	\$ 16,237	\$ 8,034,419	\$ 2,168,079
2022	\$ 173,009	\$ 46,515	\$ 8,830,583	\$ 2,384,043
2023	\$ 247,917	\$ 80,616	\$ 9,644,574	\$ 2,492,603
2024	\$ 411,007	\$ 132,577	\$ 10,865,386	\$ 2,833,875
2025	\$ 544,340	\$ 176,015	\$ 11,644,278	\$ 3,150,926
2026	\$ 544,210	\$ 168,676	\$ 12,699,015	\$ 3,520,663
2027	\$ 547,070	\$ 161,517	\$ 13,121,180	\$ 3,749,262
2028	\$ 547,070	\$ 153,137	\$ 12,885,892	\$ 3,415,506
2029	\$ 460,739	\$ 145,365	\$ 11,771,631	\$ 3,100,552
2030	\$ 448,903	\$ 138,615	\$ 11,265,300	\$ 2,809,613
2031	\$ 448,682	\$ 131,866	\$ 10,973,797	\$ 2,532,741
2032	\$ 448,682	\$ 125,119	\$ 10,424,587	\$ 2,273,849
2033	\$ 448,682	\$ 118,372	\$ 9,943,031	\$ 2,028,618
2034	\$ 448,682	\$ 111,625	\$ 9,463,984	\$ 1,795,318
2035	\$ 448,682	\$ 104,878	\$ 8,716,635	\$ 1,579,874
2036	\$ 448,682	\$ 98,131	\$ 8,120,997	\$ 1,390,592
2037	\$ 448,682	\$ 91,384	\$ 7,442,671	\$ 1,216,088
2038	\$ 448,682	\$ 84,637	\$ 7,138,584	\$ 1,051,047
2039	\$ 447,382	\$ 77,892	\$ 6,758,584	\$ 892,222
2040	\$ 447,382	\$ 71,158	\$ 6,314,834	\$ 739,021
2041	\$ 447,382	\$ 64,424	\$ 5,918,084	\$ 577,440
	\$ 8,958,026	\$ 2,298,756	\$ 201,978,046	\$ 45,701,932

## 2022 to 2024 Financial Forecast (continued)

### Strategic Goal Impact

In the next five years, the District is forecasted to spend almost \$280 million in operating expenses and \$120 million in capital expenditures to meet our mission to protect public health, safety, and the environment by providing our customers with reliable and affordable water, wastewater and related services. Below is an overview of some of the significant impacts spending the money will have on meeting our mission and strategic goals.

**Goal 1 - Public Health: The District will provide products and services that meet all federal, state and local quality standards.**

No significant change in how we treat and distribute water is expected in the upcoming five years so there is no change to our current level of funding was forecasted.

A new federal law dealing with lead will require the District to increase its field sampling and monitoring program and address any lead piping found in its system. In 2022, we will begin preparing for the Revised Lead and Copper Rule's compliance deadline of September 16, 2024. At this time, we have assumed that PWD will be grandfathered at a reduced sampling level and that any additional cost can be absorbed within the existing projected budget.

The District is coordinating significant investment in protecting land in the Sebago Lake Watershed through the Sebago Clean Waters Coalition. The Coalition's long-term goal is to protect from development and conserve an additional 35,000 acres of land over the next 15 years. By protecting the land, we retain the 'natural water filter' to maintain Sebago Lake's excellent water quality. Conserving and protecting land from development to maintain the water quality will continue to allow the District to avoid a federal requirement to construct a \$150 million filtration plant. The five-year forecast includes issuing up to \$1.4 million bonds of bonding to support the effort and match others' contributions of up to \$5 million.

**Goal 2 - Public Safety: The District will design and maintain its water system to meet modern firefighting needs.**

The same service level and efforts to maintain our ability to deliver the quantity with adequate pressure will continue. Additional investment of \$4 million in the Gorham/Windham area (407 Zone) will improve fire protection in those areas.

In many communities, new residential construction requires sprinkler systems. The new homeowner pays for the initial costs so there are no additional costs to include in the forecast but the change is a significant improvement to the ability to respond to fires and actually reduces the capacity needs as the sprinkler systems stop or reduce the need from the public fire system.

## 2022 to 2024 Financial Forecast (continued)

### Strategic Goal Impact

#### **Goal 3 - Environment: The District will promote the sustainability of natural resources within Casco Bay watershed.**

The five-year forecast includes the impact of constructing and operating a new treatment facility serving the North Windham area of Windham. A preliminary engineering study should be completed late 2021. Assuming the Town approves the project, the forecast assumed it would be operational in 2025. In addition to allow additional economic development of the Lake Region area, the new facility will significantly improve the water quality in the water aquifer.

The forecast continues the more than \$10 million per year level of investment in direct treatment, interception and collection system operation and maintains service to our wastewater communities that will continue to return clean sewer water back to the environment.

Part of the direct service is supporting the municipalities efforts to reduce the impact of their combined sewer overflow (CSO) facilities. Many of the CSO facilities are owned and operated by the community and utilize our expertise and system monitoring capabilities. The five-year forecast includes the construction of a \$3.2 million CSO Storage facility, assuming it is decided that a facility is needed.

The forecast assumes the continuation of our efforts to mitigate nutrients from our wastewater treatment plants without the need to make significant capital upgrades. Concern about PFAS, including PFAS in wastewater effluent and biosolids, is a concern of the public and industry. A study is underway to review options and possible additional operating and capital costs may be incurred but are not included in the 5-year forecast.

#### **Goal 4 - Reliability: The District can be trusted to provide its products and services in a manner that meets all reasonable customer expectations.**

Significant dollars— close to \$120 million --are being spent over the next 5 years on upgrading our facilities to maintain or improve reliability of the system. The biggest component is replacing \$41 million of water mains. This continues the Board's 2014 commitment to increase the investment in water mains. Starting in 2024, the annual investment in water mains is projected to increase by an additional \$1 million a year.

#### **Goal 5 - Affordability: The District will balance the delivery of products and services with customers' ability to pay water and wastewater rates and charges.**

Water rates are expected to increase faster than the rate of inflation - by 28%, or 5.6% per year on average, over the next 5 years. For median income, typical households, rates will be considered affordable. However, for lower income households, the burden is becoming more of a challenge.

Wastewater Assessments to our member communities also increase at a rate higher than rate of inflation – by 26%, or 5.2% per year. When combined with the municipal wastewater budget, the user rates assessed by the municipalities will have more ratepayers paying higher than the national standard.

## 2022 to 2024 Financial Forecast (continued)

### Strategic Goal Impact

**Goal 6 - Employees and Work Environment:** The District will have well trained and satisfied employees who will work in a safe and work environment conducive to productive work.

The forecast continues allocating an average of 80 hours for all employees and supports participation in over 30 water and wastewater related organizations. Safety will continue to be emphasized and one full-time person is dedicated to overseeing the safety program.

### Forecast Impact on the District's Financial Health

Operating Budget. All Funds have been projected that revenues meet or exceed expenses for each year when accompanied by regular, modest rate adjustments. The table below indicates the operating and capital reserve forecasted balances at the end of the five year. All funds have significant cash available .

	Operating Contingency Reserve	Percent of Budget	Capital Reserve
Water	\$ 8,163,976	25%	\$ 1,147,419
Wastewater:			
Cape Elizabeth	\$ 323,540	14%	\$ 580,337
Cumberland	\$ 223,633	19%	\$ 136,919
Gorham	\$ 256,767	16%	\$ 652,688
Portland	\$ 4,093,690	25%	\$ 5,468,340
Westbrook	\$ 638,566	17%	\$ 3,940,186
Windham	\$ 49,808	9%	\$ 254,682

The capital investments are being paid for with a mix of bonds, primarily with a 20 year term, and current year revenues. The debt service burden does increase over the next 5 years with debt service between 25% to 54%. Windham's amount is high due to the Town's request to construct the new North Windham Wastewater system. With the exception of Windham, the debt service burden is lower than average water/wastewater utility.

	Debt Service - Percent of Budget	Debt Service Ratio
Water	29%	148%
Wastewater:		
Cape Elizabeth	26%	129%
Cumberland	33%	123%
Gorham	25%	125%
Portland	25%	125%
Westbrook	29%	118%
Windham	54%	105%

## Maine Measures of Growth 2020 Scorecard

### FUNDAMENTAL PERFORMANCE INDICATORS

#### PROSPERITY

##### 1. Wages pg 8

Maine's average annual wage was \$47,234, well below the U.S. and New England averages of about \$59,000, but just 4% below the average for a group of comparable states.

##### 2. Poverty pg 9

Maine's poverty rate rose from 11.3% in 2017 to 11.6% in 2018. Nationwide, poverty declined from 13.4% to 13.1%, and New England's poverty rate decreased slightly from 10.4% to 10.2%.

##### 3. Gender Income Equity pg 10

In recent years, women's income as a percentage of men's in Maine has gradually improved, from 79% in 2014 and 2015 to 84% in 2018.

##### 4. Racial/Ethnic Income Equity pg 11

 From 2014 to 2018, the average per-capita income in Maine was \$31,253. White, non-Hispanic Mainers averaged \$32,050 in per-capita income, 60% higher than the \$19,920 average among Maine residents of all other races and ethnicities.

#### PEOPLE

##### 5. Total Employment pg 13

Maine total employment continued to grow in 2019, adding another 5,100 jobs for a total of 635,500 jobs.

##### 6. Workforce pg 14

 Maine had a workforce of 690,000 people in 2019. From 2018 to 2019, the workforce shrank by 2,900 people.

#### PRODUCTIVITY

##### 7. Value-Added per Worker pg 15

 Worker productivity in Maine has steadily increased, but it is among the lowest of the 50 states. Our value added per worker grew from \$97,201 in 2017 to \$100,463 in 2018, but as a percentage of U.S. value-added per worker, Maine's dropped from 24% lower in 2016 and 2017 to 25% lower in 2018.

##### 8. Gross Domestic Product pg 16

Adjusted for inflation, Maine's GDP grew 1.9% from 2018 to 2019. This trailed the national and New England average of 2.3%.

### ECONOMY

#### INNOVATION

##### 9. Research & Development Expenditures pg 18

 In 2017, Maine's total spending on R&D was \$520 million, up from \$483 million in 2016. R&D spending in Maine represents 0.8% of total GDP, which ranks 46th of the 50 states and is one-half of the estimated 1.6% average among EPSCoR states.

##### 10. International Exports pg 19

 Maine saw a 4% drop in exports from 2018 to 2019; U.S. exports fell 1.4%. Maine's international trade index peaked in 2011 and has been relatively flat since 2013.

##### 11. Entrepreneurship pg 20

 In 2018, Maine dropped to a 50-state ranking of 43rd, from 6th place in 2017 and 37th in 2015 and 2016. This metric is often volatile due to the small but variable numbers of new business owners each year.

#### TALENT

##### 12. Prekindergarten Education pg 21

  In 2019-20, 77% of Maine school districts offered free public pre-K programs. 46% of Maine four-year-olds were enrolled in public pre-K in 2018-19, well above the U.S. average of 34% and the New England average of 30%.

##### 13. Fourth-Grade Reading pg 22

 In 2019, 36% of Maine 4th-graders were proficient in reading by NAEP standards, the same proportion as in 2015 and 2017. Maine ranked just above the national average of 35% and trailed the New England average by four points.

##### 14. Eighth-Grade Math pg 23

 34% of Maine 8th-graders tested proficient on NAEP in 2019, down from 40% in 2013 and at the same level as in 2007. The national average was 33% and the New England average was 38% in 2019.

##### 15. Postsecondary Degree Attainment and Occupational Credentials pg 24

 Maine's postsecondary degree attainment improved from 34% in 2008 to 41% in 2018, equal to the national average, but well below the New England average of 49%.

#### BUSINESS CLIMATE

##### 16. Cost of Doing Business pg 25

 Maine's cost of doing business index value was 112 in 2007, rose to a high of 114 in 2008-2009, and has been stable at 110 since 2012. In 2019, Maine's cost of doing business ranked 7th highest in the U.S., ranking worse than New Hampshire, Rhode Island, and Connecticut, and better than Massachusetts and Vermont.



PDF available for download at [mdf.org](http://mdf.org)

Why is this of significance to Portland Water District? Ability to hire new skilled employees will be a challenge in the future. Cost of doing business in Maine is high, which might inhibit the ability to continue to increase water rates.

## Maine Measures of Growth 2020 Scorecard

### 17. Cost of Health Care pg 26

In 2018, health care spending in Maine stood at 17.4% of all personal expenditures, above the 2008 rate of 16.6%, but at a stable level since 2015. Mainers devote a higher proportion of expenditures to health care than the national and New England averages.

### 18. Cost of Energy pg 27

The industrial price of electricity in Maine increased slightly from 9.32 to 9.37 cents per kilowatt hour from 2018 to 2019, while the average New England price declined from 13.19 to 12.92 cents and the U.S. average fell from 6.92 to 6.83 cents.

### 19. State and Local Tax Burden pg 28

State and local tax burden in Maine has remained around 12% of personal income since 2009. The 2017 New England average was 10.5%. From 2016 to 2017, Maine's state and local tax burden moved closer to the New England average.



## COMMUNITY

### INFRASTRUCTURE

### 20. Broadband Connectivity pg 30

While 95% of Mainers have access to basic broadband—slightly above the national rate of 94%—only 55% have broadband subscriptions, compared with 65% nationally. The proportion of Mainers with basic broadband subscriptions rose from 30% in 2016 to 55% in 2018.

### 21. Transportation Infrastructure pg 31

In 2019, 816 miles or 58% of Priority 1 highways were graded A, B or C, and 582 miles (42%) received grades of D or F. This shows further, steady decline since 2012 in the proportion of Maine highways receiving top grades.

### 22. Housing Affordability pg 32

Housing is more affordable in Maine than in the United States or the Northeast region. But after improving from 2007 to 2015, housing affordability in Maine has declined slightly each year since.

## HEALTH & SAFETY



### 23. Safety pg 33

Maine's crime rate in 2018, 14.7 per 1,000 residents, was 43% below the national rate of 25.8 and among the lowest of the 50 states. Maine's violent crimes rates in particular are significantly lower than the nation, and property crime rates have also been falling.



### 24. Wellness and Prevention pg 34

Two-thirds (66%) of Maine adults were overweight or obese in 2018. This is up one percentage point from 2017, and equal to the U.S. average.



### 25. Health Insurance Coverage pg 35

The proportion of Maine residents with health insurance coverage has remained at 92% from 2016 through 2018. Maine's health insurance coverage rate rose slightly from 2017 to 2018 while the national rate of 91% dropped slightly.



### 26. Food Security pg 36

13.6% of Maine households experienced food insecurity in 2016-2018, down from 14.4% in 2015-2017, but well above the U.S. average of 11.7% and the New England average of 10.6%.



## ENVIRONMENT



### 27. Air Quality pg 38

After declining in the 1980s and 1990s, air quality in Maine has improved substantially, and is better than other Northeastern states. The number of moderate (23) and low (1) air quality days in 2019 were the lowest on record.



### 28. Water Quality pg 39

Since 2006, Maine's water quality has remained steady, with 95% of rivers and streams, and 91% of lakes, achieving Category 1 or 2 ("good") in 2016.



### 29. Sustainable Forest Lands pg 40

Since 2010, Maine has maintained net forest growth-to-removal ratios slightly in favor of growth over harvest. The growth to harvest ratio fell slightly from 1.38 in 2018 to 1.27 in 2019.



### Exceptional Performance

Very high national standing and/or established trend toward significant improvement.



### Needs Attention

Very low national standing and/or established trend toward significant decline. The indicator may show improvement but is still viewed as needing attention.



Movement toward the benchmark since the last available data.



No significant movement relative to the benchmark since the last available data.

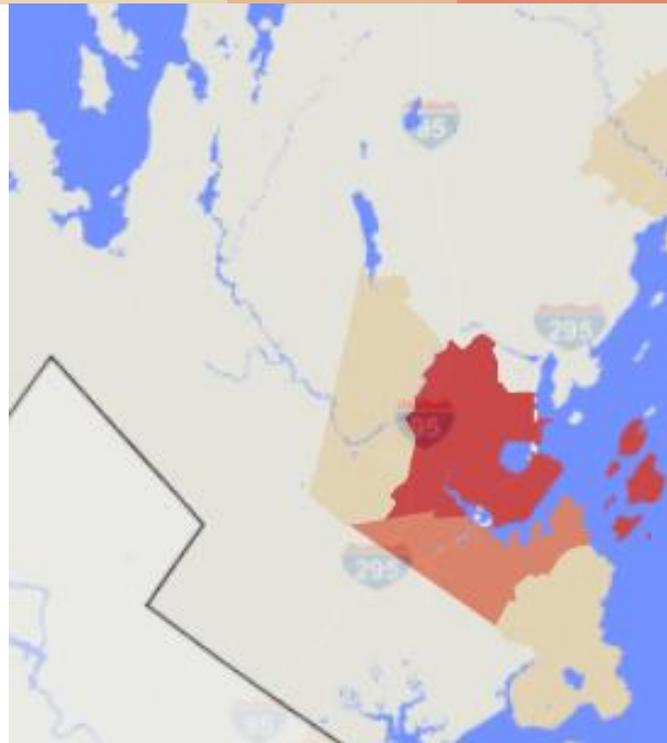
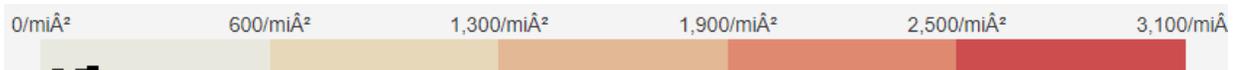


Movement away from the benchmark since the last available data.

## Population Change and Density

Maine is relatively rural state with low population density. Growth has been modest with 8% growth in the past 10 years. Cities (red area) are more density in population however in the past 10 years the towns have grown at a faster pace than the city population. As the population spreads out, we need to make sure our infrastructure supports their water needs. One example is a series of capital projects in the 407 zone (Windham/Gorham) area (see Capital Expenditure Section – Water Program 307 – almost \$18 million of projects)

<b>2020 vs 2010</b>				
City/Town	2020 Population	2010 Population	Change Number	Change Percent
Cape Elizabeth	9,535	9,015	520	6%
Cumberland	8,473	7,211	1,262	18%
Falmouth	12,444	11,185	1,259	11%
Gorham	18,336	16,381	1,955	12%
Portland	68,408	66,194	2,214	3%
Scarborough	22,135	18,919	3,216	17%
South Portland	26,498	25,002	1,496	6%
Westbrook	20,400	17,494	2,906	17%
Windham	18,434	17,001	1,433	8%
Raymond	4,512	4,436	76	2%
<b>Total</b>	<b>209,175</b>	<b>192,838</b>	<b>16,337</b>	<b>8%</b>
Standish	10,244	9,874	370	4%
<b>Total Served</b>	<b>219,419</b>	<b>202,712</b>	<b>16,707</b>	<b>8%</b>

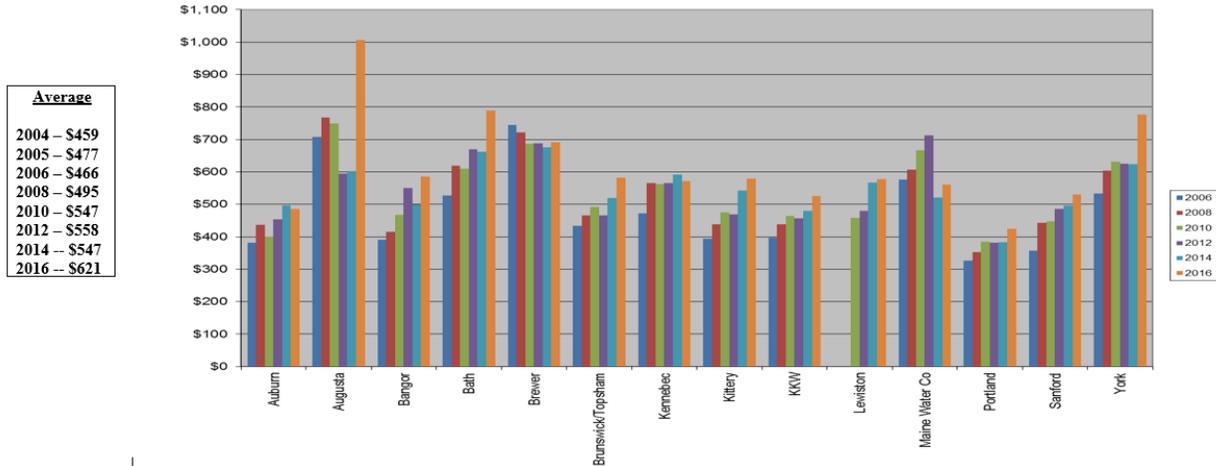


## Water Benchmark Data

### Maine Water Utilities Survey Results

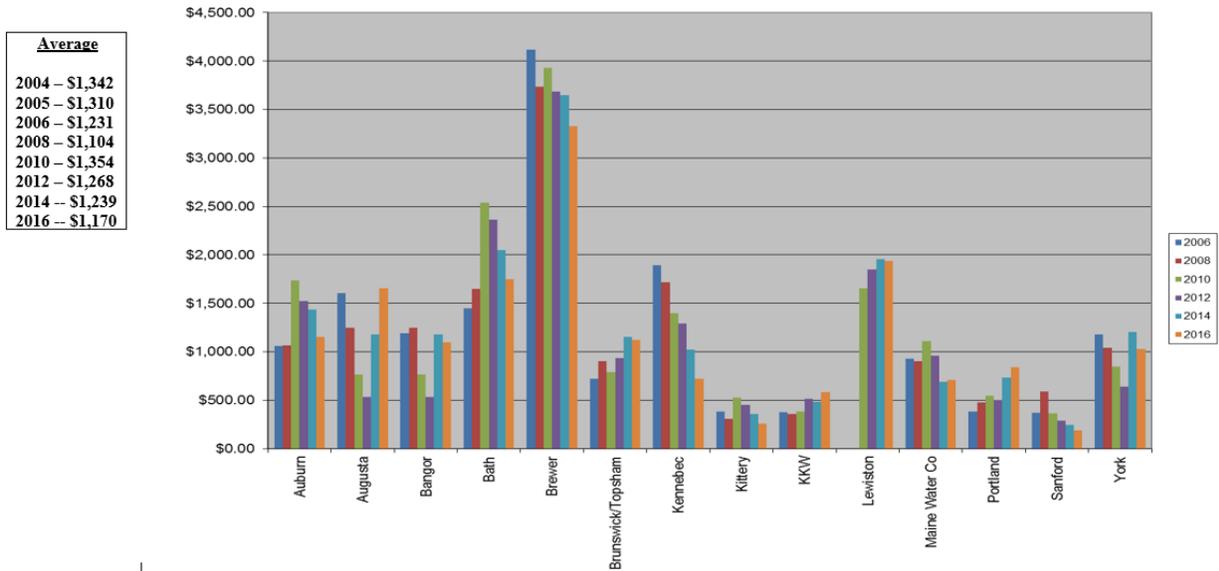
The District participates in a survey of Maine water utilities. Two selected items surveyed are average customer revenue per thousand and debt per capita.

Key Ratio: **Average Customer Revenue**  
 Significance: Important to understand customer revenue for rate purposes.  
 Calculation: *PUC Annual Report Page F-4 Operating Revenue divided by W-3 Number of Customers*



District's average revenue collected per customer is lower than other utilities indicating the relative efficiency of the District's operation.

Key Ratio: **Total Debt Per Capita**  
 Significance: Measures debt burden relative to service area population.  
 Calculation: *PUC Annual Report Page F-2 Account 221/232 Bond/Notes Payable divided by W-3 Number of Customers*

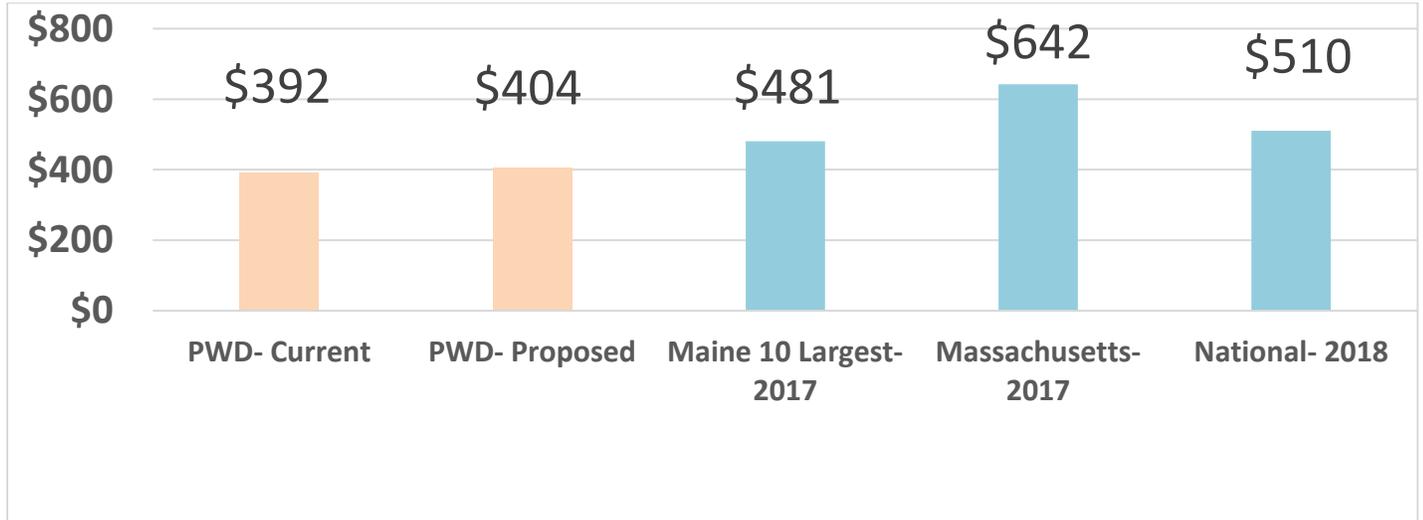


District has relatively lower debt service costs per capita, indicating the relative higher ratepayer capacity to pay for additional debt financing.

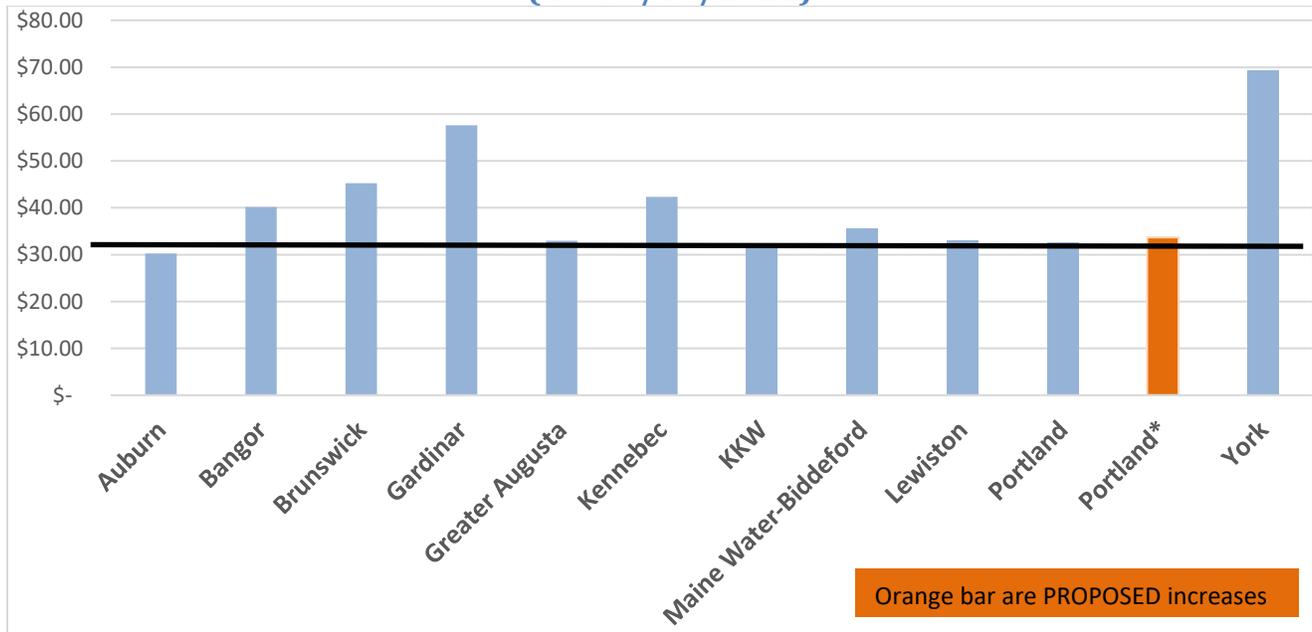
## Water Benchmark Data (continued)

### Water Rates

The District's water rates for a typical household are relatively lower than other Maine, Massachusetts and National utilities.



### Residential Monthly Bill - Portland Water District vs Other Maine Larger Utilities (as of 9/23/2021)



## Portland Water District Rate Sheet Summary

A summary of Portland Water District's Water Rates and Municipalities' Sewer Rates as of October 1, 2020 is presented below. Water and Sewer is billed based on actual water consumption for all communities except Falmouth Wastewater customers. The chart shows the typical usage by the number of occupants in the household.

### PORTLAND WATER DISTRICT RATE SHEET 09.01.21

Typical monthly consumption and charges for Residential users with 5/8" meter on daily usage of 60 gallons per person  
Usage is rounded to nearest hundred cubic feet (hcf). 1 HCF = 748 gallons.

WATER RATES				
Effective Date		12/01/20		
# OF PEOPLE	GALLONS = HCF	MEMBERS	NON-MEMBERS	
1	1,800 =	2	12.55	14.44
2	3,600 =	5	20.08	23.11
3	5,400 =	7	25.10	28.89
4	7,200 =	10	32.63	37.56
5	9,000 =	12	37.65	43.34
6	10,800 =	14	42.67	49.12
7	12,600 =	17	50.20	57.79
8	14,400 =	19	55.22	63.57
9	16,200 =	22	62.75	72.24

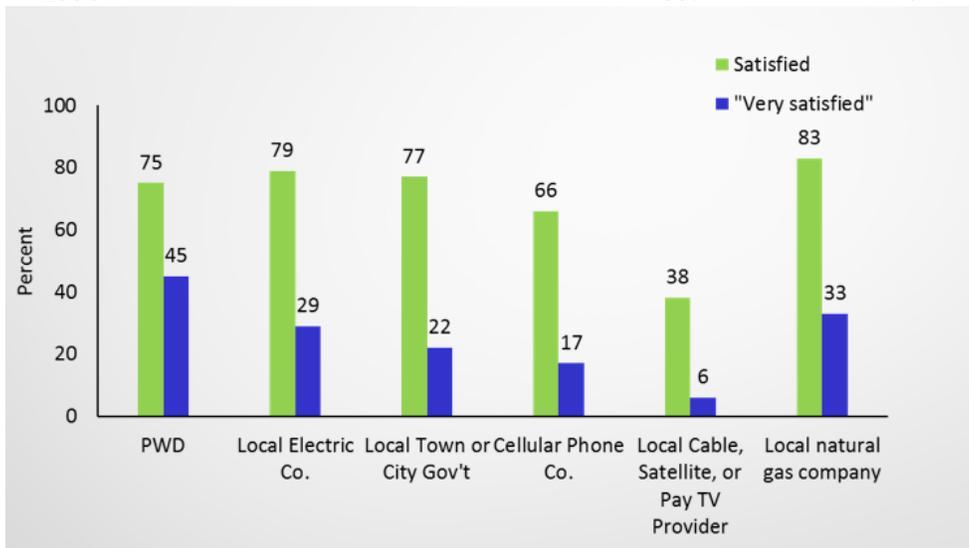
SEWER RATES						
09/01/21	09/01/18	09/01/21	03/01/16	01/01/21	05/01/20	04.01.21
PORTLAND	CUMBERLAND	SOUTH PORTLAND	CAPE ELIZABETH	WESTBROOK	WINDHAM	GORHAM
23.60	47.96	11.48	55.18	19.66	48.84	21.03
59.00	64.52	28.70	72.22	41.65	48.84	40.95
82.60	75.56	40.18	83.58	56.31	62.84	54.23
118.00	92.12	57.40	100.62	78.30	83.84	74.15
141.60	103.16	68.88	111.98	92.96	97.84	87.43
165.20	114.20	80.36	123.34	107.62	111.84	100.71
200.60	130.76	97.58	140.38	129.61	132.84	120.63
224.20	141.80	109.06	151.74	144.27	146.84	133.91
259.60	158.36	126.28	168.78	166.26	167.84	153.83

WATER RATES	Min Charge includes 1 HCF	Per additional HCF 2-30 HCF	Per additional HCF 31-100 HCF	Lifeline Water Rate (Reduction in Monthly Minimum Charge)	Minimum includes 1 HCF
MEMBERS	10.04	2.51	2.23	MEMBERS	2.51
NON-MEMBERS	11.55	2.89	2.57	NON-MEMBERS	2.89
SEWER RATES	Min HCF	MIN CHARGE	HCF	Municipal Contacts for Sewer	
PORTLAND	1	11.80	11.80	Ben Pearson	874-8843
CUMBERLAND	0	36.92	5.52	Pam Bosarge	829-2207
SOUTH PORTLAND	1	5.74	5.74	Colleen Mitchell	767-7675
CAPE ELIZABETH	1	49.50	5.68	Ben McDougal	799-5251
WESTBROOK	1	12.33	7.33	Eric Dudley	854-9105 x222
GORHAM	1	14.39	6.64	Freeman Abbott	222-1608
				Laurie Nordfors	222-1675
WINDHAM	5 hcf per unit	48.84	7.00	Barry A. Tibbetts	892-1907
FALMOUTH eff 07.01.2021	RATE PER LIVING UNIT	Commercial Fixtures > 17	SCHOOLS	Beth Pauls	781-4462
	\$46.88 x # of units (Residential)	(\$46.88 x # of units) + (# of fixtures - 17 fixtures x \$2.21) (Com'l combination of fixtures)	\$39.06 for every 15 students (Schools)	Note: These are the most common sewer rates, but this is not a complete list.	

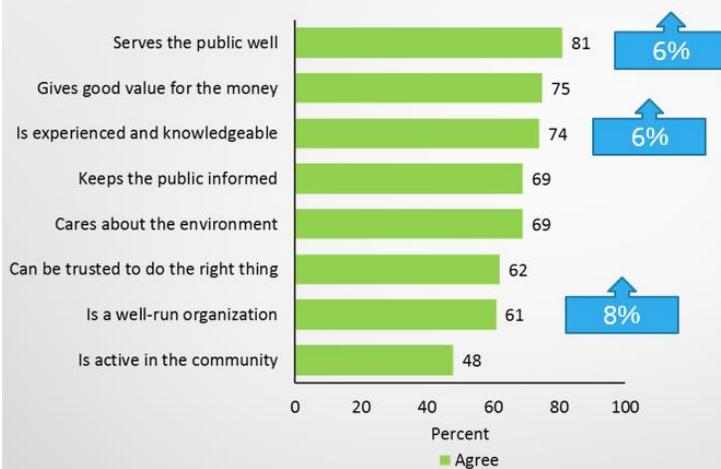
### Customer Satisfaction Survey

A periodic customer satisfaction survey is conducted. The last survey was conducted in 2017. A summary of the results is below and indicate that overall satisfaction remains high relative to other local utilities. The 2022 Budget includes funding to do another survey.

Year	Overall	Water Service/Quality	Sewer
2017	75%	89%	85%
2014	82%	88%	70%
2011	87%	92%	71%
2008	85%	90%	76%
2005	88%	89%	78%
2002	89%	90%	83%
2000	89%	91%	79%
1998	NA	85%	74%



### General Reputation Trends



Generally, respondents (92%) feel very positive about the Portland Water District. 7%

## Proposed Board of Trustees' Orders and Resolutions



Portland Water District  
From Sebago Lake To Casco Bay

### **BOARD OF TRUSTEES / AGENDA ITEM SUMMARY**

Agenda Items:

Date of Meeting: November 23, 2021  
 Subject: Proposed Budget Orders  
 Presented By: Carrie Lewis

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The Administration and Finance, Operations and Planning Committees reviewed the 2021 Budget and CIP for which they have jurisdiction. Below are the recommended motions to be considered at the regular meeting.

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The proposed motion accepts the 2021 budget and authorizes billing the municipalities for wastewater and billing services.

#### **Order 21-032**

ORDERED that the 2021 Budget and Wastewater Assessments as presented by the General Manager are accepted and adopted and shall be filed with the minutes of this meeting; and pursuant to Section 12 of the District's Charter, to assess for 2021 the participating municipalities for wastewater related costs as follows:

Town of Cape Elizabeth	\$ 2,061,612
Town of Cumberland	1,005,600
Town of Falmouth	314,112
Town of Gorham	1,313,100
City of Portland	13,960,236
City of Westbrook	3,173,124
Town of Windham	518,412

and to assess non-participating municipal corporations for billing-related costs as follows:

City of South Portland	\$ 208,164
Scarborough Sanitary District	12,072

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The motion accepts the proposed capital improvement plan and authorizes staff to implement the 2021 projects within the restrictions stated below and in compliance with the purchasing policy guidelines.

**Order 21-033**

ORDERED that the 2022-2026 Capital Improvement Plan is hereby adopted and the General Manager is authorized to solicit bids or proposals for the year 2022 projects; excepting CIP# 182, project 3241\North Windham Wastewater system and to authorize the General Manager to award contracts for approved projects to the lowest bidder if the bid is within the project budget;

BE IT FURTHER ORDERED that the General Manager shall solicit bids or proposals and to partner with Municipalities, MDOT and Developers for the year 2021 for the replacement and extension of water mains, services, valves and hydrants as outlined in the Water Distribution Systems Program and to authorize the General Manager to award and enter into contracts if the bid or partnering proposals are within the overall program budget.

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In compliance with Internal Revenue Service (IRS) regulation, an 'intent to borrow' motion must be approved by the Board before expenditures are incurred on a project that may be financed with tax-exempt financing. Resolutions 21-016 to 21-019 are intent to borrow motions for each fund. Before a bond is actually authorized or issued, a public hearing will be held. Subsequent to the hearing, the Board will consider authorizing the bond.

**Resolution 21 - 016**

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for water fund projects identified in the 2021 CIP. The full form of the resolution is attached hereto and incorporated herein by reference, and shall be part of the minutes of this meeting.

**Resolution 21 - 017**

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for the Cape Elizabeth wastewater fund projects identified in the 2021 CIP. The full form of the Resolution is attached hereto and incorporated herein by reference, and shall be part of the minutes of this meeting.

**Resolution 21 – 018**

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for the Portland wastewater fund projects identified in the 2021 CIP. The full form of the Resolution is attached hereto and incorporated herein by reference, and shall be a part of the minutes of this meeting.

**Resolution 21 – 019**

RESOLVED the Board hereby declares its intent to issue debt to reimburse costs incurred by the District for the Westbrook, Gorham and Windham wastewater fund projects identified in the 2021 CIP. The full form of the Resolution is attached hereto and incorporated herein by reference, and shall be a part of the minutes of this meeting.

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**Resolution 21-016**  
**DECLARATION OF OFFICIAL INTENT PURSUANT TO**  
**TREASURY REGULATION §1.150-2**  
**(Water Fund)**

**WHEREAS**, the Portland Water District (the “Issuer”) intends to proceed with the projects described in section 2 below (the “Projects”); and

**WHEREAS**, the Issuer intends to finance some or all of the costs of the Projects through the issuance of tax-exempt bonds or notes in anticipation thereof; and

**WHEREAS**, the Issuer may incur certain of the costs of the Projects prior to the issuance of such bonds or notes and the Issuer expects to be reimbursed from the proceeds thereof; and

**WHEREAS**, Treasury Regulation §1.150-2 requires that the Issuer declare its official intent to reimburse itself for such expenditures with the proceeds of such bonds or notes.

**NOW, THEREFORE**, the Issuer does hereby declare its official intent as follows:

1. **Declaration of Intent.** The Issuer reasonably expects to reimburse itself for expenditures made on the Projects with the proceeds of tax-exempt bonds or notes in anticipation thereof to be issued by the Issuer to finance the costs of the Projects in the maximum principal amount of \$10,610,000.
2. **General Description of Property to which Reimbursement Relates.** The following is a reasonably accurate general functional description of the type and use of the property with respect to which reimbursements will be made:
  - Construction or installation of new water mains, valves, hydrants, services and meters;
  - Acquisition of vehicles, leak detection and related equipment;
  - Renovation of various water facilities, including but not limited to the Windham Pump Station;
  - Acquisition and installation of various computer and other IT-related equipment; and
  - Building improvements at the Douglass Street facilities including but not limited to the HVAC system and roof.
3. **Public Availability of Official Intent.** This Declaration of Official Intent shall be maintained as a public record of the Issuer.
4. **Treasury Regulations.** This is a declaration of official intent pursuant to the requirements of Treasury Regulations § 1.150-2.
5. **Authority for Declaration.** This declaration is adopted pursuant to the following action of the Issuer: Resolution adopted by the Portland Water District Board of Trustees.

**Resolution 21-017**  
**DECLARATION OF OFFICIAL INTENT PURSUANT TO**  
**TREASURY REGULATION §1.150-2**  
**(Cape Elizabeth Sewer Fund)**

**WHEREAS**, the Portland Water District (the “Issuer”) intends to proceed with the projects described in section 2 below (the “Projects”); and

**WHEREAS**, the Issuer intends to finance some or all of the costs of the Projects through the issuance of tax-exempt bonds or notes in anticipation thereof; and

**WHEREAS**, the Issuer may incur certain of the costs of the Projects prior to the issuance of such bonds or notes and the Issuer expects to be reimbursed from the proceeds thereof; and

**WHEREAS**, Treasury Regulation §1.150-2 requires that the Issuer declare its official intent to reimburse itself for such expenditures with the proceeds of such bonds or notes.

**NOW, THEREFORE**, the Issuer does hereby declare its official intent as follows:

1. **Declaration of Intent.** The Issuer reasonably expects to reimburse itself for expenditures made on the Projects with the proceeds of tax-exempt bonds or notes in anticipation thereof to be issued by the Issuer to finance the costs of the Projects in the maximum principal amount of \$600,000.
2. **General Description of Property to which Reimbursement Relates.** The following is a reasonably accurate general functional description of the type and use of the property located in the Town of Cape Elizabeth with respect to which reimbursements will be made:
  - Replacement of obsolete assets, machinery and equipment or installation of new equipment at various pump stations, including but not limited to the Ottawa pump stations,
  - Acquisition and installation of security and SCADA equipment, and
  - Replacement or installation of other miscellaneous machinery and equipment at the treatment plant.
3. **Public Availability of Official Intent.** This Declaration of Official Intent shall be maintained as a public record of the Issuer.
4. **Treasury Regulations.** This is a declaration of official intent pursuant to the requirements of Treasury Regulations § 1.150-2.
5. **Authority for Declaration.** This declaration is adopted pursuant to the following action of the Issuer: Resolution adopted by the Portland Water District Board of Trustees.

**Resolution 21-018**  
**DECLARATION OF OFFICIAL INTENT PURSUANT TO**  
**TREASURY REGULATION §1.150-2**  
**(Portland Sewer Fund)**

**WHEREAS**, the Portland Water District (the “Issuer”) intends to proceed with the projects described in section 2 below (the “Projects”); and

**WHEREAS**, the Issuer intends to finance some or all of the costs of the Projects through the issuance of tax-exempt bonds or notes in anticipation thereof; and

**WHEREAS**, the Issuer may incur certain of the costs of the Projects prior to the issuance of such bonds or notes and the Issuer expects to be reimbursed from the proceeds thereof; and

**WHEREAS**, Treasury Regulation §1.150-2 requires that the Issuer declare its official intent to reimburse itself for such expenditures with the proceeds of such bonds or notes.

**NOW, THEREFORE**, the Issuer does hereby declare its official intent as follows:

1. **Declaration of Intent.** The Issuer reasonably expects to reimburse itself for expenditures made on the Projects with the tax-exempt proceeds of bonds or notes in anticipation thereof to be issued by the Issuer to finance the costs of the Projects in the maximum principal amount of \$7,235,000.
2. **General Description of Property to which Reimbursement Relates.** The following is a reasonably accurate general functional description of the type and use of the property located in the City of Portland with respect to which reimbursements will be made:
  - Renovation, repair and replacement of machinery and equipment and facilities at the East End and Peaks Island Treatment Plant, including but not limited to projects related to the return sludge piping, primary sludge handling, standby generator, rotary press and locker room;
  - Replacement of obsolete assets machinery and equipment or installation of new machinery and equipment and force mains at various pump stations, including but not limited to Stroudwater, Westbrook Street and Baxter Boulevard pump stations; and
  - Acquisition and installation of SCADA equipment.
3. **Public Availability of Official Intent.** This Declaration of Official Intent shall be maintained as a public record of the Issuer.
4. **Treasury Regulations.** This is a declaration of official intent pursuant to the requirements of Treasury Regulations § 1.150-2.
5. **Authority for Declaration.** This declaration is adopted pursuant to the following action of the Issuer: Resolution adopted by the Portland Water District Board of Trustees.

**Resolution 21-019**  
**DECLARATION OF OFFICIAL INTENT PURSUANT TO**  
**TREASURY REGULATION §1.150-2**  
**(Westbrook, Gorham and Windham Sewer Funds)**

**WHEREAS**, the Portland Water District (the “Issuer”) intends to proceed with the projects described below (the “Projects”); and

**WHEREAS**, the Issuer intends to finance some or all of the costs of the Projects through the issuance of tax-exempt bonds or notes in anticipation thereof; and

**WHEREAS**, the Issuer may incur certain of the costs of the Projects prior to the issuance of such bonds or notes and the Issuer expects to be reimbursed from the proceeds thereof; and

**WHEREAS**, Treasury Regulation §1.150-2 requires that the Issuer declare its official intent to reimburse itself for such expenditures with the proceeds of such bonds or notes.

**NOW, THEREFORE**, the Issuer does hereby declare its official intent as follows:

- 1. Declaration of Intent.** The Issuer reasonably expects to reimburse itself for expenditures made on the Projects with the proceeds of tax-exempt bonds or notes in anticipation thereof to be issued by the Issuer to finance the costs of the Projects in the maximum principal amount of \$10,280,000.
- 2. General Description of Property to which Reimbursement Relates.** The following is a reasonably accurate general functional description of the type and use of the property located in the City of Westbrook with respect to which reimbursements will be made:
  - Construction and equipping of a new wastewater treatment plant and related infrastructure in the North Windham area of Windham, and
  - Renovation, repair and replacement of machinery, equipment and facilities at the Westbrook Regional Treatment Plant and various pump stations in Gorham, Westbrook and Windham.
- 3. Public Availability of Official Intent.** This Declaration of Official Intent shall be maintained as a public record of the Issuer.
- 4. Treasury Regulations.** This is a declaration of official intent pursuant to the requirements of Treasury Regulations § 1.150-2.
- 5. Authority for Declaration.** This declaration is adopted pursuant to the following action of the Issuer: Resolution adopted by the Portland Water District Board of Trustees.

## Glossary/Acronyms

<b>Term</b>	<b>Description</b>
407 Zone	A water pressure zone, supported by pump stations and water tanks, that is at an elevation above the District's water source (Sebago Lake).
ABC Project	ABC stands for "Asset, Billing & Customer Relations". It is made up of two parts: the Cayenta Billing and Central Square Asset Management projects.
Accurate bill index	The ratio of correct read adjustments on accounts to the total of all accounts.
Accrual Basis	The method of accounting under which revenues are recorded when they are earned (whether or not cash is received at that time) and expenditures are recorded when goods and services are received (whether or not cash disbursements are made at the time)
AED	Automated external defibrillator
AL	Aluminum
AMaP	Asset Management and Planning group, consisting of Engineering and Environmental Services
Amortization	The write-off of costs that has a financial benefit exceeding 1 year but is not a capital expenditure. The write-off period is determined based on an estimate of asset's useful life.
AMR	Automated Meter Reading
Asset Information Management (AIM) System	Computerized asset identification system used to document all asset maintenance schedules / procedures from day of acquisition to disposal.
AWWA	American Water Works Association

## Glossary/Acronyms

BOD	Biochemical Oxygen Demand - a measure of organic material in the influent / effluent of the wastewater system expressed in lbs./ day
Bond	A written promise to pay (debt) a specified sum of money (called principal) at a specified future date (called the maturity date(s)) along with periodic interest payments at a specific percentage of principal (interest rate).
Booster Station	Water pump station
Capital Expenditure	Expenditures for a physical asset that exceeds \$10,000 and has a useful life of greater than 5 years or extends the useful life of an existing asset for more than 5 years.
Cayenta Billing Project	Current project to update/replace the District's billing and customer service information system.
CCTV	Closed Circuit Television
Central Square Asset Management Project	Current project to update/replace the District's asset management and computerized maintenance management system (CMMS).
CEWWTF	Cape Elizabeth Wastewater Treatment Facility
CMMS	Computerized maintenance management system
CMP	Acronym for Central Maine Power, electricity provider
Combined Sewer Overflow (CSO)	CSO's are a part of a combined sewer system that contains both sanitary waste and storm water. Under high flow events, generally due to wet weather that exceed the sewer system's capacity, CSO's will discharge excess flows into nearby bodies of water.
CPE	Comprehensive Plant Evaluation

## Glossary/Acronyms

CRM	Customer relationship management
Cross Connection Fees	Fees collected for work relating to the inspection of water backflow devices.
Cryptosporidium	A one cell parasite that originates from the feces of infected animals and humans that can cause gastrointestinal illness.
Customer Activation Fees	Fees charged customer if a new billing account needs to be created; typically when a customer moves into a new home.
Customer Connection Fees	Applications fees charged to customers requesting to install a new water main, service line or meter.
Customer Penalties	Disconnection fees charged to customers for non-payment of services.
CWSSP	Comprehensive Water System Strategic Plan
Deferred Costs	Costs that have been incurred for a purpose that has a beneficial period in excess of one year but does not culminate into a capital expenditure. These costs are normally written-off to operating expense over the estimated useful life of the item.
DEP	Department of Environmental Protection, State of Maine
Depreciation	The write-off of an asset based on the decrease in value of property over its estimated useful life.
DHHS	Department of Health and Human Services
EEWWTF	East End Wastewater Treatment Facility
Enterprise Fund	A proprietary fund used by governments to account for business-type activities. Such a fund is appropriately used for operations that are financed and operated in a manner similar to private business enterprise where the intent is that the costs be financed or recovered primarily through user charges.
EPA	Environmental Protection Agency, Federal Agency

## Glossary/Acronyms

ERP	Emergency Response Plan
FEMA	Federal Emergency Management Agency - a federal agency that provides financial assistance after declared national disasters.
Fire Service Outage Index	Standard to monitor hydrants returned to service within 3 business days.
Force Main (Sewer)	Sewer force mains are necessary when gravity flow is not sufficient to move water runoff and sewage through a gravity line. Force mains move wastewater under pressure by using pumps or compressors located in lift stations.
Fouling	Settlement, and sometimes the growth, of undesired materials on solid surfaces in a way that reduces the efficiency of the affected part.
Fund	An independent fiscal and accounting entity with a self-balancing set of accounts recording cash and /or other resources together with all related liabilities, obligations, reserves, and equities which are segregated for the purpose of carrying on specific activities or attaining certain objectives.
Generally Accepted Accounting Principal (GAAP)	Uniform minimum standards of, and guidelines for, external financial and reporting. They govern the form and content of basic financial statements of an entity. GAAP encompasses the conventions, rules and procedures necessary to define accepted accounting practice at a particular time. The primary authoritative statements on the application of GAAP to local governments are Government Accounting Standards Board pronouncements (GASB).
HCF	Hundred Cubic Feet- the standard measure used for billing water usage, 1 HCF is equal to 748 gallons of water, 1 cubic foot of water is equal to 7.48 gallons.

## Glossary/Acronyms

Hydrogeological	Adjective of hydrogeology that means the branch of geology dealing with the waters below the earth's surface and with the geological aspects of surface waters.
Industrial Pretreatment Program (IPT)	A program responsible for permitting and monitoring industrial sewer customers who discharge significant quantities of non-domestic wastewater to the collection system to ensure their activities do not impact our operation or the receiving waters.
I/I	Abbreviation for Infiltration and Inflow. Inflow and infiltration are terms used to describe the ways that groundwater and storm water enter the sanitary sewer system. Inflow is water that is dumped into the sewer system through improper connections, such as downspouts and groundwater sump pumps. Infiltration is groundwater that enters the sewer system through leaks in the pipe.
Interest from Customers	Late fees charged to past due balances. An account is considered delinquent 25 days after the bill is mailed to customer.
Jobbing Revenue	Revenue for work performed by District employees which is billable to outside parties.
LOTO	Lockout tag-out
LOX	Liquid Oxygen, LOX is used by the District in the production of ozone which is used in the water treatment process
LTD	Long Term Debt
MCL	Maximum contaminant level
MDOT Cash Reserve	Funds received from Maine Department of Transportation from sales of land to be reserved for future land purchases.
MEANS	Main Extension and New Services program

## Glossary/Acronyms

MGD	Acronym for million gallons per day (Mgal/d). Measures rate of flow of liquid.
MMBB	Maine Municipal Bond Bank
MPLS	Multiprotocol Label Switching
NFPA 70E	National Fire Protection Association standard for electrical safety in the workplace.
Ozone	A gas formed by electrical discharge in air used as an oxidizing, deodorizing and bleaching agent in the purification of water.
PFAS	Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals potentially impacting the District's wastewater biosolids.
PI	Plant Information - a database used to automatically compile performance information on a specific asset.
PIWWTF	Peaks Island Wastewater Treatment Facility
PLC	Programmable logic controller is an industrial computer control system that continuously monitors the state of input devices and makes decisions based upon a custom program to control the state of output devices
PPB	Parts per billion
Proprietary Funds	Accounting funds established to separate assets and operational costs based on the type of system (i.e. Water or Wastewater) or Wastewater municipality.
PRTG	Paessler Router Traffic Grapher, refers to network monitoring software
PS	Pump Station
PUC	Public Utilities Commission, a State of Maine agency charged with regulating utilities.

## Glossary/Acronyms

Quasi-municipality	Independent government entity as defined by state law. It has many of the responsibilities and rights of a typical governmental entity.
R&R Multi-fund Assets	Assets utilized by all funds and paid for by allocations to the funds (i.e. computers, meters, administrative office space).
Renewal and Replacement Funds	A cash reserve created to fund smaller capital projects.
Sanitary Sewer Overflows (SSO)	Sewer systems that contain only sanitary flows that may discharge directly into water bodies without being treated.
SCADA	Supervisory Control and Data Acquisition
SDS	Safety data sheets
SLWTF	Sebago Lake Water Treatment Facility
SOP	Standard operating procedure
Spatial Scheduling	Use of the district's geographic information system to schedule customer appointments on a daily basis to best utilize manpower and vehicle usage.
SRF	State Revolving Fund- Maine Municipal Bond Bank program for long-term financing
STD	Short Term Debt
SU	Standard units of measuring pH with a range of 1 - 14.
Sub-meters	Meters installed to measure water that will not be returned to the sewer system for disposal. This water may be used for irrigation purposes or other outside use and therefore should not be included in the calculation of wastewater disposal charges.
SWTR standards	Surface Water Treatment Rules
TCR samples	Total Coliform Rule

## Glossary/Acronyms

10th Percentile Chlorine Residual	Minimum residual found in water samples approximately 90% of the time.
TIF	Tax Increment Finance - a designated municipal fund established to fund structural improvements
TPS	Thickened Primary Sludge
Tropic State Index	Calculated measure of lake productivity with clear, clean water as the desired result. Range of less than 30 to greater than 100 with the lower the number, the better the results.
TSS	Total Suspended Solids - a measure of suspended material in the influent / effluent of the wastewater system expressed in lbs. / day
Unaccounted for Water	Water not measured by metered flow such as fire service use, main leaks, etc.
UV	UV stands for Ultra Violet. UV water or wastewater treatment systems use special lamps that emit UV light of a particular wavelength that have the ability, based on their length, to disrupt the DNA of micro-organisms.
Water Outage Index	Index of the ratio of customer outage hours/million hours available. Customer outage hours are computed by taking the # of customers without water service times the number of hours the outage lasts. The hours available is derived by taking the number of customers times number of days times 24 hours per day.
Watershed	A stretch of high land dividing the areas drained by different rivers or river systems into Sebago Lake.
Watershed Reserve	PUC allowed reserve of Water revenue to be used for future land purchases to protect PWD's watershed.
Weighted average unit price	Total cost of a product divided by the total product units

## Glossary/Acronyms

WEWWTF	Westbrook/Gorham/Windham Regional Treatment Facility
WIMS	Water information management solution (software)
WWPS	Wastewater Pump Station
WTF	(Drinking) Water Treatment Facility
WWTF	Wastewater Treatment Facility